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ABSTRACT

The report presents data from two national assessments--1971-72 and 1978-79--of the attitudes, knowledge, and understandings of American students about music. In each assessment, 9-, 13-, and 17-year-olds were administered exercises designed to measure some of their cognitive abilities and attitudes about music and some of their experiences with music. Some exercises from the first assessment were readministered in the second assessment so that changes in music achievement could be detected. Also, data were gathered on the music training background of students. Achievement results are presented for national populations of 9-, 13-, and 17-year-olds as well as for subpopulations defined by region of the country, sex, race/ethnicity, parental education, type of community, and grade level. Some major findings from the report include the following. About three-fourths of the students at each age appear to have positive feelings about music and appear able to make simple judgments about it. Many students have some knowledge of the elements and expressive controls of music--52% of the 9-year-olds, 61% of the 13-year-olds, and 57% of the 17-year-olds. Knowledge about music history and style is less widespread--58% for 9-year-olds, 36% for 13-year-olds, and 39% for 17-year-olds. Fewer 9- and 17-year-olds were successful in answering their respective exercises in the two assessments. The decline between assessments for the 9-year-olds was 3.3%; for the 17-year-olds it was 2.5%. The percentage of 13-year-olds able to respond correctly to the music exercises was about 41% in both assessments. Primary type of information provided by report: Results (Selective) (Change).

MUSIC 1971-79:

Results From the Second National Music Assessment

Report No. 10-MU-01

by the
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MUSIC

1st Assessment (1971-72)

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03-MU-02	A Perspective on the First Music Assessment, April 1974	1.00
03-MU-03	An Assessment of Attitudes Toward Music, September 1974	1.10
03-MU-00	The First Music Assessment: An Overview, August 1974	1.00
03-MU-20	Music Technical Report: Exercise Volume, December 1975	25.00
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FOREWORD

When the U.S. Office of Education was chartered in 1867, one charge to its commissioners was to determine the nation's progress in education. The National Assessment of Educational Progress (NAEP) was initiated a century later to address, in a systematic way, that charge.

Since 1969, the National Assessment has gathered information about levels of educational achievement across the country and reported its findings to the nation. It has surveyed the attainments of 9-year-olds, 13-year-olds, 17-year-olds and sometimes adults in art, career and occupational development, citizenship, literature, mathematics, music, reading, science, social studies and writing. All areas have been periodically reassessed in order to detect any important changes. To date, National Assessment has interviewed and tested nearly 1,000,000 young Americans.

Learning-area assessments evolve from a consensus process. Each assessment is the product of several years of work by a great many educators, scholars and lay persons from all over the nation. Initially, these people design objectives for each subject area, proposing general goals they feel Americans should be achieving in the course of their education. After careful review, these objectives are given to item writers, whose task it is to create exercises appropriate to the objectives.

When the exercises have passed extensive reviews by subject-area specialists, measurement experts and lay persons, they are administered to probability samples. These samples are selected in such a way that the results of their assessment can be generalized to an entire national population. That is, on the basis of the performance of about 2,500 9-year-olds on a given exercise, we can make generalizations about the probable performance of all 9-year-olds in the nation.

After assessment data have been collected, scored and analyzed, the National Assessment publishes reports and disseminates the results as widely as possible. Not all exercises are released for publication. Because NAEP will readminister some of the same exercises in the future to determine whether the performance levels of Americans have increased, remained stable or decreased, it is essential that the exercises not be released in order to preserve the integrity of the study.

ACKNOWLEDGMENTS

Many organizations and individuals have made substantial contributions to the music assessments. Not the least of those to be gratefully acknowledged are the administrators, teachers and students who cooperated so generously during the collection of the data.

Special acknowledgment must go to the many music educators and specialists who provided their expertise in the development, review and selection of the assessment objectives and exercises. Three of these music educators, Dr. Richard M. Graham, Dr. Kevin J. McCarthy and Dr. Diana V. Owen, reviewed an early draft of this report and participated in an interpretive conference about the results of the two music assessments. They made a substantial contribution to the development of Chapter 5 of this report.

Administration of the music assessment was conducted by the Research Triangle Institute, Raleigh, North Carolina. Scoring and processing were carried out by the Measurement Research Center (now Westinghouse DataScore), Iowa City, Iowa, and by the National Assessment staff.

Within the National Assessment staff, thanks must go to Jan Pearson who coordinated the development, scoring and data analysis for the second music assessment. Donald T. Searls, Eugene Johnson and Edgar Ortiz must be thanked for their support on sampling and data analysis; Gwen Edwards and Ingrid Larsson Shea for their data processing support; Ava Powell and Lynn Grover Gisi for their technical support; Marci Reser and Deborah Houy for their production support. This report was written by Barbara Holmes.

Roy H. Forbes
Director

HIGHLIGHTS

Below are some of the more significant findings from two national music assessments. These and other results are discussed in detail in Chapters 2 through 4 and commented upon by music educators in Chapter 5.

Achievement Results for the 1978-79 Assessment

- Around three-fourths of the students at each age appear to have positive feelings about music and appear able to make simple judgments about it.
- Many students have some knowledge of the elements and expressive controls of music. On 45 questions about elements and controls, the average percentage of success for 9-year-olds was 52%; on 50 questions, the average for 13-year-olds was 61%; and on 49 questions, the average for 17-year-olds was 57%. However, students appear strongest at identifying the elements and controls and weakest at identifying the relationships among them in a given composition.
- Knowledge about music history and style is less widespread: on 18 exercises assessing these areas, the average percentage of success for 9-year-olds was 58%; on 55 items, the average percentage of success for 13-year-olds was 36%; and on 61 such exercises for 17-year-olds, the average percentage of success was 39%.

Changes in Achievement

- Fewer 9- and 17-year-olds were successful at answering their respective exercises in the 1978-79 assessment than in the 1971-72 assessment. The decline between assessments for 9-year-olds was 3.3%; for 17-year-olds, it was 2.5%.
- The percentage of 13-year-olds able to respond correctly to the music exercises was about 41% in both assessments.
- Fewer 9- and 17-year-olds in the second assessment were successful on exercises that required knowledge of the elements and expressive controls of music than in the first assessment. The decline between assessments was 3.4% for 9-year-olds and 4.9% for 17-year-olds.
- Knowledge about music history and style did not decline between assessments among 9-, 13- or 17-year-olds.

Exposure to Music

- Nine-year-olds who indicated that they had been taught music in school for two years (1977-78/1978-79) performed about 4 percentage points better on all music exercises than those who had been taught music in school for only one year and 6 percentage points better than those who had not been taught music in school in either year.
- Seventy-four percent of the 9-year-olds indicated that they "listen to music," 45% indicated that they "sing just for fun" and nearly 30% indicated they "play a musical instrument just for fun" in the school music class.
- More 13- and 17-year-olds indicated participation in general music classes than in choir, band or orchestra. However, approximately 28% of the 13-year-olds and 18% of the 17-year-olds have never taken a general music class or music appreciation.
- Forty-eight percent of the 13-year-olds and 46% of the 17-year-olds have never taken choir, chorus or glee club; 50% of the 13-year-olds and nearly 52% of the 17-year-olds have never taken band or instrumental music; and a bit more than 90% of the 13- and 17-year-olds have never taken orchestra.
- Those 13- and 17-year-olds who have participated in school musical activities and classes performed better on the achievement exercises than those students who have not. Achievement results were 12 to 13 percentage points different between students who have had no band or orchestra experience and those who have had at least three years of participation in this activity. Achievement results also are 6 to 9 percentage points different between students who have not participated in choir or glee club and those who have participated for at least three years.

CHAPTER 1

INTRODUCTION

The National Assessment of Educational Progress (NAEP) has conducted two music assessments among American students during the 1971-72 and 1978-79 school years. In each assessment, 9-, 13- and 17-year-olds (age levels that mark the end of primary, intermediate and secondary education) were administered exercises (items) designed to measure some of their cognitive abilities in music, some of their attitudes about music and some of their experiences with music. The second assessment included exercises from the first in order to determine changes in these areas over time. However, the first assessment included a large component of performance exercises. Resources were not available at the time of the second assessment to continue assessing students' ability to sing and play musical instruments. Therefore, the assessment of changes in music achievement was conducted using a limited set of exercises. The second assessment included exercises that measured amplified and refined objectives developed for the second music assessment. The results obtained from three newly developed exercises and from readministration of some exercises used in both assessments are the subject of this report.

Data Base

Students in the National Assessment sample are chosen through a multistage probability sampling design so that they fully represent the national population. Therefore, on the basis of the responses to a given exercise, we can generalize about the probable achievement of an entire age group across the nation. Responses are reported as percentages of young persons answering a given exercise or as mean percentages of young persons answering correctly a set of related exercises. Approximately 2,500 young people responded to each exercise.

The results presented in this report are based on data collected from national samples of three age populations enrolled in school at two points in time. The age populations were assessed at the following times during the school year:

9-year-olds	Jan.-Feb. 1972 and 1979
13-year-olds	Oct.-Dec. 1971 and 1978
17-year-olds	March-May 1972 and 1979

In each assessment, booklets of exercises were administered to samples of students. The booklets, which require approximately 45 minutes to complete, were administered by a trained professional field staff using paced, audio tapes to assure uniform assessment conditions. Music exercises were packaged with social studies exercises in the first assessment and with writing exercises in the second assessment. Readers interested in the details of sampling and administrative procedures may consult *Procedural Handbook: 1978-79 Music Assessment* (1981).

Measuring Change in Achievement

For the summary measures reported, the estimated average percentage of success is calculated by summing the percentage of correct responses on each exercise and dividing the total by the number of exercises selected for the summary. Throughout this report, changes in achievement are based on identical sets of exercises administered to the same age population in the two music assessments.

Changes in the achievement of an entire age population — all 9-year-olds, all 13-year-olds or all 17-year-olds — are indicated by changes in the percentages of young people correctly answering an exercise or a set of exercises. Changes in the achievement of certain groups of students — for example, males, females, Southeasterners, and so on — are indicated by changes in the percentage of success for a group and by changes in the group's position compared with the national percentage of success. By observing these two changes we can determine, first, whether a larger or smaller pro-

portion of respondents answered an exercise correctly in one assessment than in another, and second, whether or not there was a change between assessments in the group's standing compared with the nation as a whole. Both types of information contribute to an understanding of whether the achievement level of a given group has changed.

National Assessment computes standard errors that estimate the sampling error and other random error associated with the measurement of a specific item. NAEP has adhered to the standard convention whereby differences between statistics are designated as statistically significant only if the differences are at least twice as large as their standard errors. Differences this large would occur by chance in fewer than 5% of all possible replications of the sampling, data collection and scoring procedures for any particular age group or reporting group. Changes that are statistically significant are denoted by an asterisk (*) in the tables.

When summarizing more general trends across age populations or reporting groups, it is important to consider overall patterns as well as statistical significance. If, for example, an age population or group shows a consistent pattern of decline or increase on particular sets of exercises, the results may be noteworthy even if single changes are not statistically significant. Readers must often decide for themselves how important particular changes or differences are. Statistical conventions can aid, but not replace, good judgment.

Group Definitions

National Assessment, unlike most testing programs, does not report scores for individuals. In addition to national results for the three age populations, NAEP provides results for *groups* of respondents. Respondents are classified by sex, race/ethnicity, region of the country, level of parents' education, grade and community type. Definitions of these groups are presented below.

Age

National results are presented for 9-, 13- and 17-year-olds enrolled in school at the time of the assessment.

Sex

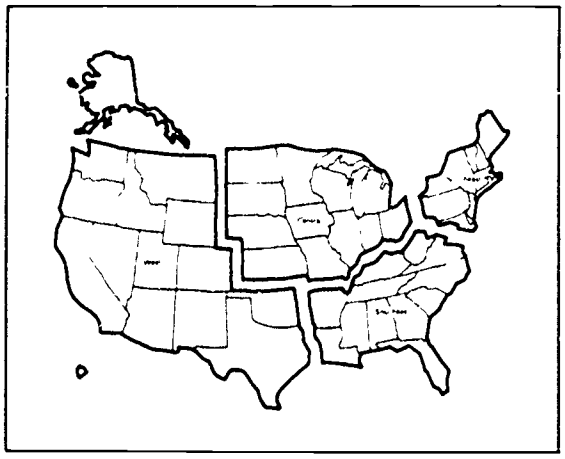
Results are presented for males and females.

Race/Ethnicity

Results are presented for black, white and Hispanic students.

Region

Results are presented for the Northeastern, Southeastern, Central and Western regions shown on the following map.



Parental Education

Results are presented for three levels of parental education: (1) those whose parents have not graduated from high school, (2) those who have at least one parent who has graduated from high school and (3) those who have at least one parent who has had some post high school education.

Type of Community

Three extreme community types of special interest are defined by occupational profiles of the area served by a school, as well as by the size of the community in which the school is located. This is the only reporting category that excludes a large number of respondents. About two-thirds do not fall into the classifications listed below. Results for the remaining two-thirds are not reported, since their performance is similar to that of the nation.

Advantaged urban. Students in this group attend schools in or around cities having a population greater than 200,000 and where a high proportion of the residents are in professional or managerial employment.

Disadvantaged urban. Students in this group attend schools in or around cities having a population greater than 200,000 and where a relatively high proportion of the residents are on welfare or are not regularly employed.

Rural. Students in this group attend schools in areas with a population under 10,000 and where many of the residents are farmers or farm workers.

Grade in School

Results are categorized for 9-year-olds in grades 3 and 4, 13-year-olds in grades 7 and 8, and 17-year-olds in grades 10, 11 and 12.

In reporting group data, the following abbreviations have been used on tables and graphs:

- N = Nation
- NE = Northeast
- SE = Southeast
- C = Central
- W = West
- M = Males
- F = Females
- B = Blacks
- H = Hispanos
- WH = Whites
- NG = Parents have not graduated from high school
- GH = At least one parent has graduated from high school
- PH = At least one parent has had some post high school education
- AU = Advantaged urban
- DU = Disadvantaged urban
- R = Rural

While the achievement differences reported here may point to areas of concern, readers are cautioned not to ascribe these differences to membership in racial and/or ethnic groups. Any number of socioeconomic, school-related and environmental factors contribute to performance on tests, and since no single factor adequately describes an entire group, care must be taken not to overgeneralize based on these data.

The Music Objectives

Many persons involved in music education at the university, secondary and elementary levels met with lay people and NAEP staff to formulate the objectives for the second assessment of music. Names of these individuals are listed in Appendix A.

A major difficulty in assessing achievement in music results is the fact that many of the primary goals of music education cannot be easily stated in terms of observable behavior. For instance, one goal of music education is to develop aesthetic sensitivity within each student; another is to help students develop their musical abilities during the elementary and secondary school years. These are important goals for performers and nonperformers alike, regardless of the extent to which a student is thought to be talented. But evidence that these goals have been achieved is difficult to define and measure and even more difficult to gather. The objectives are part of a continuing effort to define goals in music with increasing precision and breadth. They constitute an improvement upon the first National Assessment objectives, and they will undoubtedly be improved upon in future assessments.

The development panel wanted the objectives for the second assessment to be broadened to apply to all students, regardless of their exposure to music education or formal music training. While conceptually similar, the 1978-79 objectives tend to emphasize the affective domain (Objective I) to a greater degree than the objectives for the first music assessment. Another concern of the development panel was that a greater variety of musics be represented; therefore, the second assessment included more than formal art music. Also, those involved in developing the new objectives suggested that data be gathered on the music training background of

each respondent so that a context could be provided for interpreting the music achievement level of students.

The figure below (Figure 1) shows the first music objectives and those developed for the second assessment. While music educators may acknowledge that both sets of objectives are worthy goals to be met by music programs and training, the National Assessment does not claim that either the first or the second assessment measured to the fullest possible extent the behaviors, attitudes or experiences that may be indicative of achievement of the music objectives. Interested readers may consult the music objectives booklet for a more thorough discussion of objectives development (*Music Objectives, Second Assessment*, 1980).

FIGURE 1. Music Objectives

1971-72	1978-79
I. Perform a piece of music	I. Value music as an important realm of human experience
II. Read standard musical notation	II. Perform music
III. Listen to music with understanding	III. Create music
IV. Be knowledgeable about some musical instruments, some of the terminology of music, methods of performance and forms, some of the standard literature of music and some aspects of the history of music	IV. Identify the elements and expressive controls of music
V. Know about the musical resources of the community and seek musical experiences by performing music	V. Identify and classify music historically and culturally
VI. Make judgments about music and value the personal worth of music	

Each objective has exercises appropriate to the respective age populations, and each objective reflects a single, major concept. While exercise content remains similar across ages, the content increases in depth of coverage with age.

In order to measure changes in students' achievement in music, some of the exercises from the first assessment were readministered in the second assessment. Because the objectives for the two assessments are conceptually similar, the exercises from the first assessment were classified to match the numbering of the objectives for the second assessment. Table 1 shows the total of readministered exercises by objective number for each age population.

TABLE 1. Total Readministered Exercises Included Within Each Objective Summary Measure for Each Age, 1971-72 and 1978-79

	Age 9	Age 13	Age 17
Objective I	9	3	3
Objective IV	23	27	31
Objective V	2	39	46
Total	25	69	80

In the first music assessment, most of the exercises designed to measure Objective I (value music) for 13- and 17-year-olds and all of the exercises designed to measure this objective for 9-year-olds were exercises individually administered along with the performance exercises. Due to funding limitations, the National Assessment was not able to readminister the individually administered exercises in the second assessment. Therefore, data on changes in performance are not available, and data on changes in valuing music are available only for three exercises at ages 13 and 17.

In addition to the exercises readministered to detect changes in achievement (Table 1), the National Assessment administered new exercises developed for the second music assessment that were designed to measure students' achievement on Objectives I, IV and V. Table 2 shows the total number of exercises by objective number for each age population. These totals include the readministered exercises shown in Table 1.

TABLE 2. Total Exercises Included Within Each Objective Summary Measure for Each Age, 1978-79

	Age 9	Age 13	Age 17
Objective I	15	20	16
Objective IV	45	50	49
Objective V	18	55	61
Total	78	125	126

Organization of This Report

This report presents results summarizing achievement on all exercises administered to each age population (e.g., 9-year-olds' achievement on a total of 78 measures), as well as achievement on each objective at each age.

Chapter 2 presents achievement results for 9-, 13- and 17-year-olds on all exercises administered in 1978-79, including those used to measure changes in achievement. Chapter 3 presents changes in achievement results for 9-, 13- and 17-year-olds on exercises administered in the 1971-72 and the 1978-79 assessments. Chapter 4 contains results for background questions. Chapter 5, the interpretive chapter, evolved from a conference held in Denver with three music educators and NAEP staff, and provides some context for the results contained in this report.

Appendix A lists the persons who participated in the development and reviews of the music objectives and exercises.

Appendix B contains tabular results for the nation and the reporting groups on all exercises administered in the second music assessment. Achievement results are shown for each age for the total number of exercises administered, and results are shown for the music objectives.

Appendix C contains tabular results for the nation and the reporting groups on the exercises administered in both music assessments. Results are shown for each age population on the total number of exercises administered and for each music objective.

Appendix D contains a list of the objectives and subobjectives that guided the two music assessments.

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CHAPTER 2

ACHIEVEMENT RESULTS: 9-, 13- AND 17-YEAR-OLDS IN THE 1978-79 MUSIC ASSESSMENT

Exhibits 1, 2 and 3[1] show the national mean percentages of correct responses on the total number of exercises administered to 9-, 13- and 17-year-olds, respectively. These exhibits also show the position of selected reporting groups relative to the national level of achievement. Readers are reminded that exercise sets, on which means are computed, are different for each age population, so no comparison should be made that suggests that one age population performed better or worse than another. The only exception to this general rule occurs when the *same* exercise(s) is administered to the three age populations. When this is the case, tables are titled to indicate this and results are presented in separate columns for each age.

Fifty-seven percent of the 9-year-olds, 52% of the 13-year-olds and 50% of the 17-year-olds responded correctly to their respective exercise sets. Reporting groups who varied significantly from the national level are:

- Students in the Northeast and West performed near the national level, while students in the Southeast performed below the nation, at all three ages. Nine-year-olds in the Central region performed near the national level, but 13- and 17-year-olds in this region performed above the national level.
- Males performed below the nation, while females performed above the nation, at all ages.
- White students performed above the nation, and black and Hispanic students performed below the nation at all ages.
- Students who reported that neither parent had graduated from high school performed below the nation, and those who reported that at least one parent had had some post high school education performed above the nation at all ages. At age 9, students who reported that at least one parent had completed high school performed near the nation, but at ages 13 and 17, this group of students performed below the nation.
- Students who attend schools in rural and in disadvantaged-urban communities performed below the nation, while those who attend school in advantaged-urban communities performed above the nation at each age.

Achievement by Objective

Nine-, 13- and 17-year-olds were administered exercises in the 1978-79 music assessment to measure their achievement on three of the five new music objectives. A description of these objectives and their subobjectives follows. Many of the exercises used to measure students' achievement on these objectives were administered with aural stimuli.

> Objective I — Value Music as an Important Realm of Human Experience
>
> IA — Be affectively responsive to music
>
> IB — Be acquainted with music from different nations, cultures, periods, genres and ethnic groups
>
> IC — Value music in the life of the individual, family and community
>
> ID — Make and support aesthetic judgments about music

[1] [illegible] Exhibits 1, 2 and 3 [illegible] the [illegible] tables in Appen[illegible]

EXHIBIT 1. Average Percentages of Correct Responses for Selected Groups on 78 Music Items, Age 9, 1979

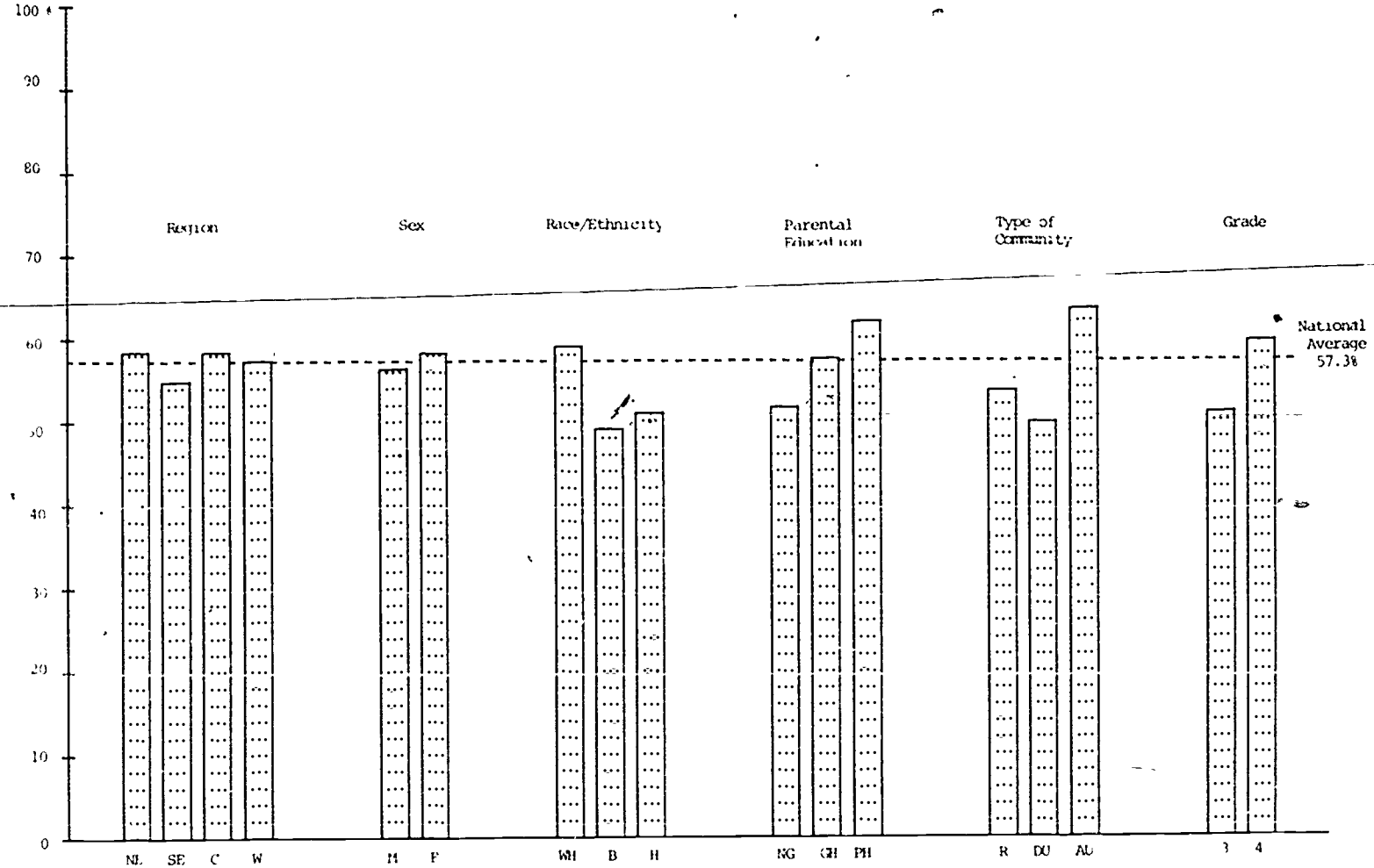


EXHIBIT 2. Average Percentages of Correct Responses for Selected Groups on 125 Music Items, Age 13, 1978

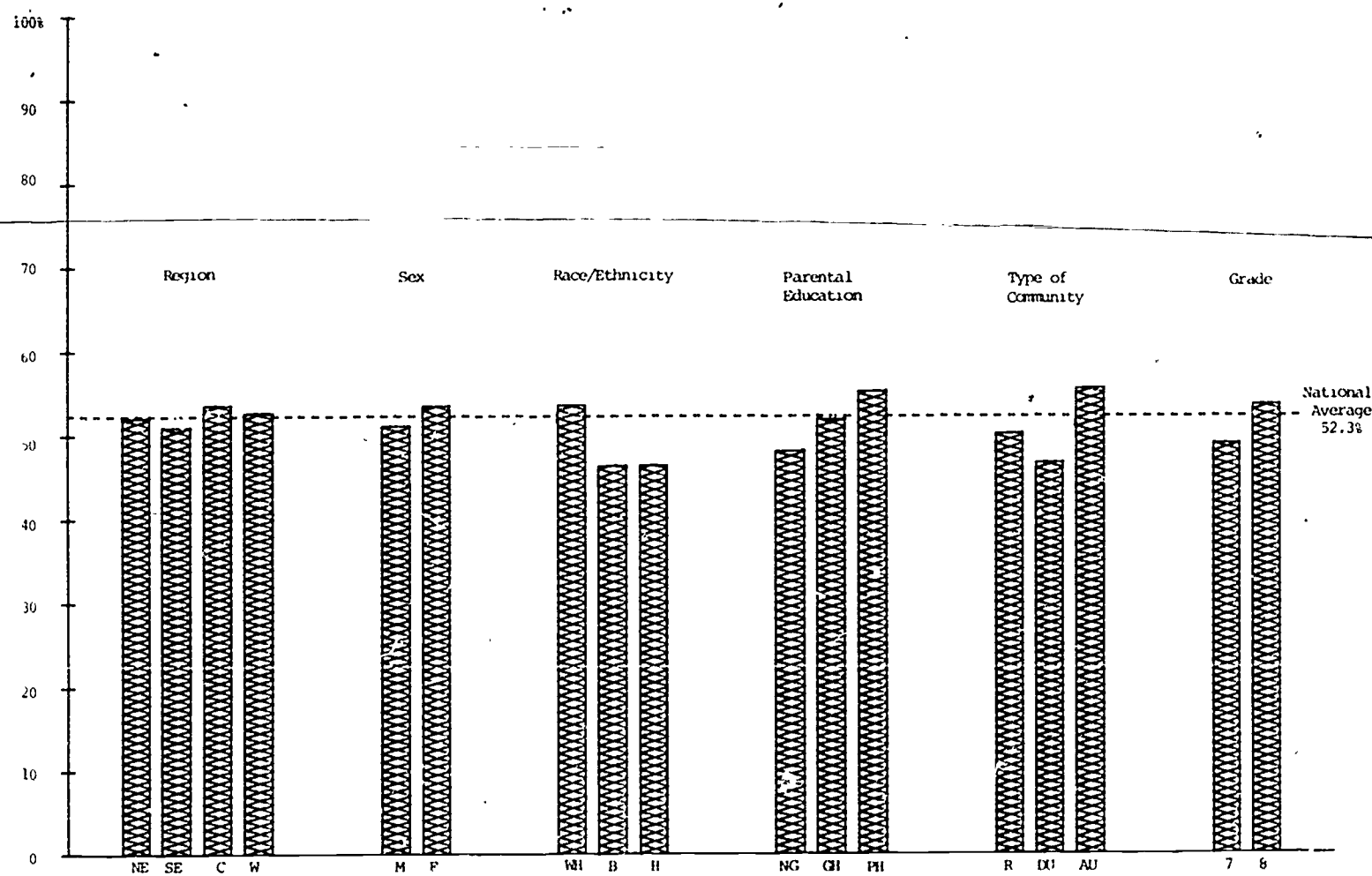
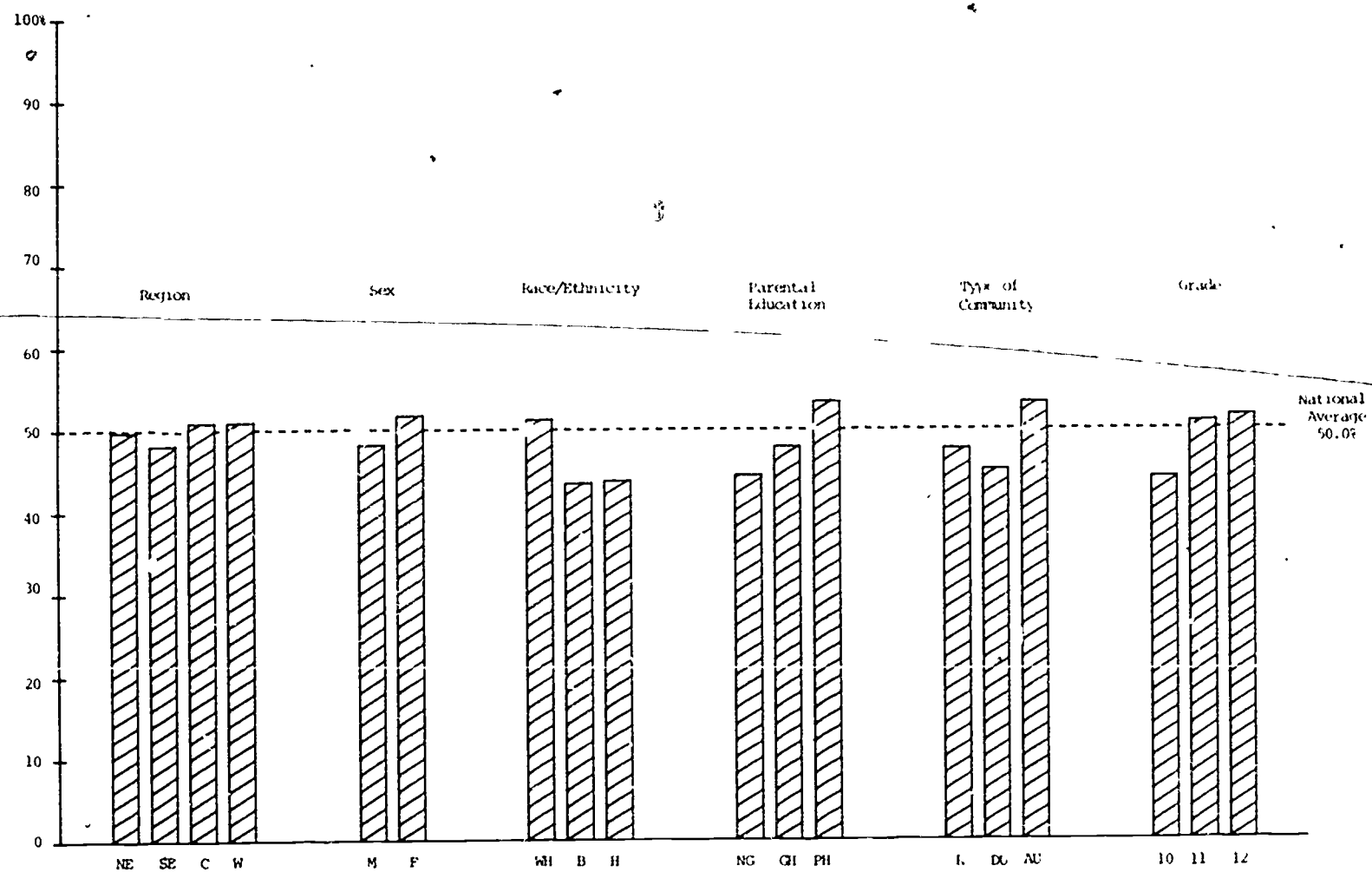


EXHIBIT 3. Average Percentages of Correct Responses for Selected Groups on 126 Music Items, Age 17, 1979



Exercises designed to measure Objective I elicit affective responses from students and explore their awareness of and sensitivity to music and musical experiences. Students were assessed on how they value and respond to music and on their ability to recognize various types of music.

Objective IV — Identify the Elements and Expressive Controls of Music

IV A — Identify the elements of music

IV B — Identify the relationships of elements in a given composition

IV C — Demonstrate an understanding of a variety of musical terms, expression markings and conducting gestures in a musical context

Exercises designed to measure Objective IV elicit cognitive responses from students and require them to demonstrate knowledge and understanding of aspects of music such as rhythm, pitch and tone quality while hearing a musical selection.

Objective V — Identify and Classify Music Historically and Culturally

V A — Identify and describe the features that characterize a variety of folk, ethnic, popular and art musics

V B — Identify and describe the music and musical style of the various stylistic periods in Western civilization (e.g., Medieval, Renaissance, Baroque, Classical, Romantic) and identify representative composers of each period

V C — Cite examples of ways in which people utilize music in their social and cultural life

Exercises designed to measure Objective V also elicit cognitive responses from students and require them to demonstrate a broad knowledge and understanding of music in the context of the world around them.

Table 3 presents an overview of achievement by objectives for the three age populations and shows the number of exercises within each major objective, the mean percentages of positive responses for Objective I and the mean percentages of correct responses for Objectives IV and V.

TABLE 3. Achievement by Objectives: Mean Percentages of Acceptable Responses for Ages 9, 13 and 17 on Three Music Objectives

	Objective I Value Music as an Important Realm of Human Experience		Objective IV Identify the Elements and Expressive Controls of Music		Objective V Identify and Classify Music Historically and Culturally	
	No. of Exercises	Mean % Positive Responses	No. of Exercises	Mean % Correct	No. of Exercises	Mean % Correct
Age 9	15	72.0	15	52.0	18	38.2
Age 13	20	74.9	50	60.9	55	36.3
Age 17	16	71.2	19	57.1	61	38.7

Nearly three-fourths of the students at each age responded positively to the affective exercises used to measure Objective I. These results are indicative of a fairly high degree of awareness of and sensitivity to music and musical experiences by American youth.

On Objective IV, more than one-half of the students at each age responded correctly to the cognitive exercises used to measure knowledge and understanding of music. On Objective V, also a cognitive objective, more than one-half of the 9-year-olds responded correctly to their exercises, while a bit more than one-third of the 13- and 17-year-olds responded correctly to their respective exercises.

Table 4 shows results for the three age populations by the subobjectives of each major objective. At ages 13 and 17, fewer students responded positively to Subobjective IC (value music in the life of the individual, family and community) than to the other three subobjectives that measure Objective I.

Another result shown on Table 4 of possible interest is that fewer students at each age responded correctly to their respective exercises used to measure Subobjective IVB (identify the relationships of elements in a given composition) than to the exercises used to measure Subobjectives IVA and IVC.

More 9-year-olds responded correctly to Subobjective VC (give examples of ways in which people utilize music in their social and cultural life) than to VA or VB. Conversely, fewer 13-year-olds responded correctly to Subobjective VB (identify and describe the music and musical style of the various stylistic periods in Western civilization) than to VA or VC. More 17-year-olds responded correctly to VA (identify and de-

TABLE 4. Music Results by Objectives and Subobjectives: 1978-79 Assessment

	Objective I Value Music . . .		Objective IV Identify Elements . . .		Objective V Identify and Classify . . .	
	Mean % Positive Responses	No. of Exercises	Mean % Correct Responses	No. of Exercises	Mean % Correct Responses	No. of Exercises
Age 9						
Mean for Objective			Mean for Objective		Mean for Objective	
I	72.0	15	IV	52.0	15	V	58.2	18
IA	73.4	4	IVA	55.5	31	VA	53.3	6
IB	72.9	4	IVB	39.0	3	VB	51.1	7
IC	70.0	4	IVC	45.5	11	VC	74.1	5
ID	71.7	3						
Age 13						
Mean for Objective			Mean for Objective		Mean for Objective	
I	74.9	20	IV	60.9	50	V	36.3	55
IA	87.9	3	IVA	67.6	30	VA	62.9	10
IB	84.6	5	IVB	36.8	5	VB	29.2	43
IC	62.8	9	IVC	55.5	15	VC	55.8	2
ID	82.3	3						
Age 17						
Mean for Objective			Mean for Objective		Mean for Objective	
I	71.2	16	IV	57.1	49	V	38.7	61
IA	88.2	3	IVA	67.3	27	VA	71.5	8
IB	70.4	3	IVB	38.1	5	VB	33.8	52
IC	64.8	9	IVC	46.4	17	VC	33.3	1
ID	79.6	1						

TABLE 5. Responses for 9-Year-Olds to:
Which One of the Following Things Would You Rather Do If You Had One Free Period a Day in School?

		Region				Race/Ethnicity			Sex		Parental Education			Type of Community †		
	Nation	NE	SE	W	C	WH	B	H	M	F	NG	GH	PH	R	DU	AU
1.	Play a musical instrument															
	14.4%	14.0%	16.3%	14.0%	13.4%	13.4%*	18.9%*	20.1%	14.7%	14.1%	17.2%	14.7%	15.3%	13.5%	17.6%	13.9%
2.	Draw or paint															
	34.0	33.8	32.9	35.1	33.8	34.9*	29.3*	30.7	35.2	32.8	29.0	35.1	31.7	32.7	30.1	35.0
3.	Write a story															
	9.0	8.3	8.6	10.0	9.1	8.7	10.5	10.9	7.9	10.2	10.9	9.1	9.4	9.9	11.9	7.7
4.	Sing in a musical group															
	4.5	5.1	4.4	4.5	4.1	3.8*	7.2*	7.8	3.3*	5.8*	6.7	4.6	3.9	4.5	7.9*	3.6
5.	Learn a foreign language															
	13.9	12.9	13.5	13.3	15.7	14.5*	11.9	10.5	12.6	15.2	12.0	14.3	16.3*	13.4	10.5	16.5
6.	Listen to music															
	10.5	10.4	11.7	10.0	10.0	10.1	9.9	10.5	9.7	11.3	12.1	10.1	10.2	12.1	10.5	9.4
7.	None of these															
	10.4	11.8	9.2	9.9	10.7	11.3*	7.2*	4.8*	13.2*	7.5*	7.0*	9.1	10.9	10.7	6.1*	11.7
	Preferences for above:															
	Music related (1, 4, 6)															
	29.4#	29.5	32.5	28.1	27.6	27.6*	36.1*	38.4*	27.7	31.2	36.3*	29.8	29.4	30.1	36.1*	27.0
	Nonmusic related (2, 3, 5, 7)															
	67.3#	66.9	64.2	68.2	69.3	69.5*	58.8*	56.9*	68.8	65.7	58.9*	67.9	68.3	66.7	58.6*	70.8

** Asterisk indicates percentages statistically significant at the .05 level.*
‡ This population group represents about one-third of the sample.
 # Figures may not total 100% due to rounding.

scribe the features that characterize a variety of folk, ethnic, popular and art music) than to VB or VC. On these two subobjectives, the percentages of 17-year-olds able to respond correctly are quite similar.

Samples of Exercises

Table 5 displays 9-year-olds' results on an exercise designed to measure Objective I. This exercise asked youngsters "Which one of the following things would you rather do if you had one free period a day in school?" More 9-year-olds (34.0%) selected "draw or paint" than any of the other alternatives. "Sing in a musical group" was selected by fewer of the 9-year-olds (4.5%) than any of the remaining alternatives.

An analysis was performed to compare the selection of music-related activities (numbers 1, 4 and 6) to non-music-related activities (numbers 2, 3, 5 and 7). Twenty-nine percent (29.4%) of the 9-year-olds chose music-related activities, while more than two-thirds of them (67.3%) chose nonmusic-related activities. However, only 10.4% of the 9-year-olds selected none of these arts and humanities types of activities.

Although the percentages of students who selected any of the alternatives presented in Table 5 are small,

TABLE 6. Percentages of "Yes" Responses for 9-, 13- and 17-Year-Olds to: Can Music Change the Way You Feel?

	Age 9	Age 13	Age 17
Nation	73.6%	93.6%	96.3%
Region			
Northeast	75.5	92.1	95.7
Southeast	71.3	93.0	95.6
West	70.7	93.7	96.0
Central	76.7	95.1	98.0
Race ethnicity			
White	77.3*	95.7*	96.8
Black	57.5*	84.1*	93.1
Hispano	56.9*	83.0*	95.1
Sex			
Male	72.4	93.0	96.1
Female	74.8	94.2	96.5
Parental education			
Not graduated high school	69.0	89.3	92.5
Graduated high school	72.0	94.3	97.0
Post high school	78.8*	95.6*	96.8
Type of community ÷			
Rural	73.5	92.2	94.0
Disadvantaged urban	55.4*	86.5*	94.7
Advantaged urban	82.4*	95.9	98.1

** Asterisk indicates percentages statistically significant at the .05 level.*

÷ This population group represents about one-third of the sample.

Some significant variations occurred between the reporting groups and 9-year-olds nationally. One difference of possible interest occurred in the analysis of students who selected music-related activities versus students who selected nonmusic-related activities.

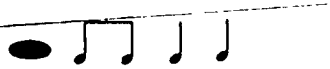
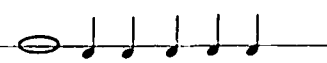
- Significantly more blacks, Hispanics, students who reported that neither parent graduated from high school and youths who attend school in disadvantaged-urban communities chose music-related activities than 9-year-olds nationally.
- Significantly more white students chose nonmusic-related activities than 9-year-olds nationally.

Table 6 displays the results of another exercise designed to measure Objective I, and it is one of those administered to all three age populations. Percentages of students who responded "yes" to the question "Can music change the way you feel?" are presented for the nation and the reporting groups.

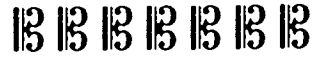
Several results shown on Table 6 may be of interest. For example, at ages 9 and 13, fewer black and Hispanic students than white students indicated that music can change the way they feel. However, at age 17, percentages of black and Hispanic students responding "yes" to the question are very similar to national percentages of responses. This same pattern occurs at ages 9 and 13 for students who attend schools in disadvantaged-urban communities.

The following exercise is one of those designed to measure Objective IV, and was administered to 9-year-olds to explore their knowledge of rhythmic organization in a musical composition.

You will hear three rhythm patterns played. Each one will be played two times. For each one, choose the one rhythm pattern that looks like the rhythm pattern you hear.

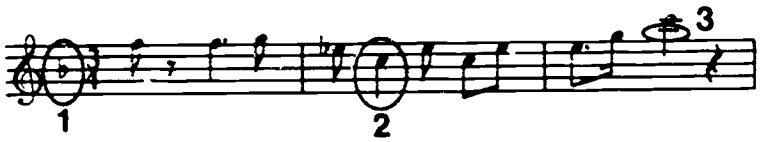
		Percent of Responses#
A.		61.2
		3.4
		24.6
		4.9
	I don't know.	4.6
B.		7.6
		69.2
		8.1
		7.7
	I don't know.	6.4
C.		21.9
		34.2
		8.8
		28.6
	I don't know.	5.5

 # Figures may not total 100% due to rounding.



Fewer 9-year-olds (34.2%) responded to part C of this exercise than to part A (61.2%) or part B (69.2%). However, 83.0% of the 9-year-olds identified at least one of the three rhythmic patterns.

Thirteen-year-olds were given the following exercise to explore their understanding of common musical notation, one of the concepts included in Objective IV.



		Percent of Responses#
A. What is the name of the symbol in Circle 1?		
○	Clef	12.3
○	Time signature	5.9
●	Key signature	51.3
○	Note	18.8
○	I don't know.	11.4
B. How many counts does the note in Circle 2 receive?		
●	1	60.6
○	2	14.1
○	3	11.4
○	4	5.0
○	I don't know.	8.6
C. What is the name of the symbol in Circle 3?		
○	Bass clef	7.3
○	Measure	5.1
○	Bar line	23.2
●	Ledger line	46.6
○	I don't know	17.5

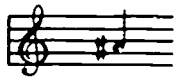
 # Figures may not total 100% due to rounding.

About more than half (51.3%) of the 13-year-olds responded correctly to part A, and 46.6% responded correctly to part B of this exercise. Nearly two-thirds (66.0%) of the 13-year-olds successfully answered either part A or part C of this exercise.

A similar, but more difficult, Objective IV exercise was administered to 17-year-olds to explore their understanding and ability to identify musical signs, symbols, terms or notations. Percentages of responses to each choice to an exercise part have been entered above the choices.

Below are musical signs, symbols, words or notations. Does each one refer to the musical category of pitch, time, tempo or dynamics? Fill in only one oval in each box.

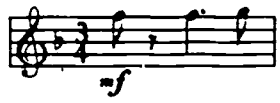
A.



Percent of Responses#

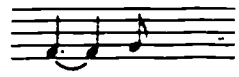
	pitch.	time.	tempo.	dynamics.	I don't know.
refers to	52.6	6.8	7.5	6.2	26.3

B.



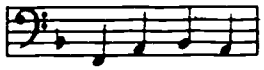
	pitch.	time.	tempo.	dynamics.	I don't know.
mf refers to	7.1	7.3	19.5	32.7	32.9

C.



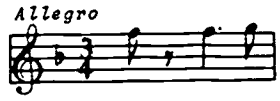
	pitch.	time.	tempo.	dynamics.	I don't know.
refers to	8.7	33.1	21.5	12.6	23.8

D.



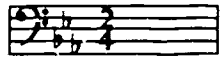
	pitch.	time.	tempo.	dynamics.	I don't know.
refers to	25.2	10.7	9.5	19.8	34.3

E.



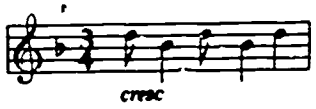
	pitch.	time.	tempo.	dynamics.	I don't know.
Allegro refers to	7.9	7.0	34.5	16.6	33.6

F.



	pitch.	time.	tempo.	dynamics.	I don't know.
$\frac{2}{4}$ refers to	3.0	63.9	12.7	1.7	18.0

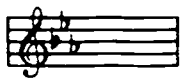
G.



Percent of Responses≠

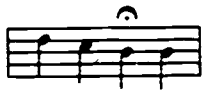
cresc. refers to	pitch.	time.	tempo.	dynamics.	I don't know.
	11.9	3.5	13.5	34.4	36.4

H.



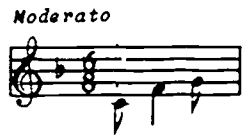
♭♭ refers to	pitch.	time.	tempo.	dynamics.	I don't know.
	51.3	2.5	8.9	8.6	28.3

I.



𝄐 refers to	pitch.	time.	tempo.	dynamics.	I don't know.
	9.6	25.5	12.9	13.0	38.6

J.



Moderato refers to	pitch.	time.	tempo.	dynamics.	I don't know.
	7.3	7.3	41.9	14.8	28.3

≠ Figures may not total 100% due to rounding.

Parts A, D and H of this exercise require the student to know that "pitch" is the correct answer: 67.6% of the 17-year-olds responded correctly to at least one of these parts. Parts C, F and I of the exercise require the student to know that "time" is the correct answer: 75.5% responded correctly to at least one of these parts. Parts E and J require the student to know that "tempo" is the correct answer: 50.6% correctly responded to at least one of these two parts. Parts B and G require the student to know that "dynamics" is the correct answer: 46.2% of the 17-year-olds correctly responded to at least one of these two parts.

The next exercise was administered to 9-, 13- and 17-year-olds to probe their knowledge of musical instruments associated with other cultures, one of the aspects of Objective V.

		Percent of Responses#		
		Age 9	Age 13	Age 17
A. In which part of the world would a balalaika be used?				
○	Italy	6.6	4.6	2.7
○	China	8.8	5.7	3.6
○	Indonesia	6.8	9.3	8.6
●	Russia	8.9	12.1	12.9
○	Polynesia	6.7	9.5	9.1
○	Japan	12.4	7.3	6.6
○	I don't know.	49.5	51.1	55.8
B. In which part of the world would a shofar be used?				
○	India	6.9	5.4	7.6
○	Sub-Saharan Africa	12.0	10.5	8.3
○	Switzerland	16.1	14.3	4.7
○	Australia	7.4	7.6	4.1
●	Israel	9.8	12.0	12.6
○	China	9.0	5.9	2.8
○	I don't know.	38.7	43.7	59.0
C. In which part of the world would a sitar be used?				
●	India	9.1	19.0	26.5
○	Sub-Saharan Africa	8.9	8.5	5.5
○	Japan	13.4	12.0	9.5
○	Australia	9.7	5.9	2.6
○	Polynesia	9.2	5.6	3.2
○	Italy	13.0	6.6	4.5
○	I don't know.	36.4	41.7	46.4
D. In which part of the world would an alphorn be used?				
○	Indonesia	8.9	4.3	2.0
○	Russia	12.0	6.4	2.1
●	Switzerland	21.1	47.6	58.1
○	China	5.1	1.9	0.8
○	Israel	8.6	3.8	2.1
○	Australia	10.8	5.4	3.2
○	I don't know.	33.3	29.6	31.0

 # Figures may not total 100% due to rounding.

Although 17-year-olds performed slightly better than 9- and 13-year-olds on each part of this exercise, the percentages of "I don't know" responses are high for each age population on each part of the exercise. However, 37.9% of the 9-year-olds correctly responded to at least two of the four parts, while 22.7% of the 13-year-olds and 30.8% of the 17-year-olds correctly responded to at least two of the four parts.

CHAPTER 3

CHANGES IN ACHIEVEMENT: 9-, 13- AND 17-YEAR-OLDS IN TWO MUSIC ASSESSMENTS

Table 7 presents the national results[1] for 9-, 13- and 17-year-old students on their respective sets of exercises in the first and second music assessments. Nine- and 17-year-olds declined significantly between the first and second assessments, while 13-year-olds showed no significant change in the percentage of students able to respond correctly to the music exercises.

TABLE 7. National Mean Percentages and Changes in Correct Responses for 9-, 13- and 17-Year-Olds in Two Music Assessments

		Mean % Correct 1971-72	Mean % Correct 1978-79	Change in Mean % Correct 1971-72, 1978-79
Age 9, total exercises	25	53.6	50.3	−3.3*
Age 13, total exercises	69	41.8	41.3	−0.5
Age 17, total exercises	80	45.7	43.2	−2.5*

* *Asterisk indicates percentages statistically significant at the .05 level.*

Exhibits 4, 5 and 6[1] display national and group mean changes in achievement from the first to the second music assessment for the three age populations and show each group's standing relative to national results. Several groups declined at ages 9 and 17 on their respective sets of exercises, while at age 13, only those students who reported that neither parent graduated from high school declined significantly between assessments.

Some groups' positions relative to national levels of achievement did not change significantly, although they declined in achievement between the two assessments. For example, students in the Northeastern region, at ages 9 and 17, declined between the two assessments, but remained near the national level because the percentage of change is similar to that for the nation for 9- and 17-year-olds. Students in the Southeastern region declined at ages 9 and 17 and remained below the national level. Conversely, 17-year-olds in the Central region declined between assessments but continued to be above the nation, whereas 9-year-olds in the Central region declined between assessments, with the result that they are no longer significantly above the national level.

Students in the Western region, at ages 9, 13 and 17, did not decline between the two assessments, but 9- and 17-year-olds in the Western region were significantly below the nation in the first assessment. In the second assessment, the change in achievement levels for 9- and 17-year-olds in the Western region was near that of the nation due to the significant decline at the national level. Other groups who did not decline significantly between assessments, but who remained below the nation, are these:

[1] Data displayed in Table 7 and Exhibits 4, 5 and 6 are drawn from the complete set of tables for Ages 9, 13 and 17.

EXHIBIT 4. Average Percentages of Correct Responses for Selected Groups on Music Items, Age 9, 1972 and 1979

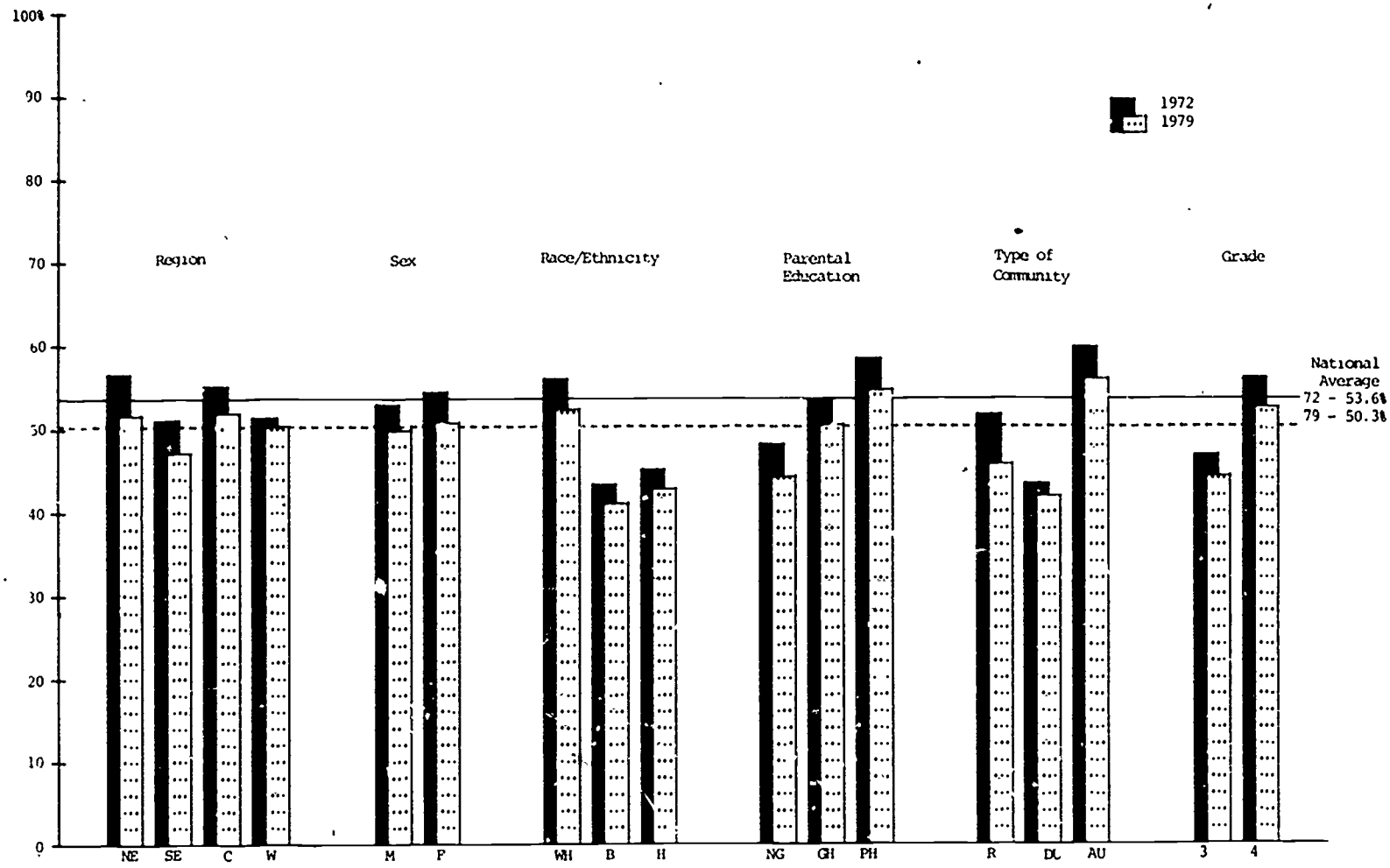


EXHIBIT 5. Average Percentages of Correct Responses for Selected Groups on Music Items, Age 13, 1971 and 1978

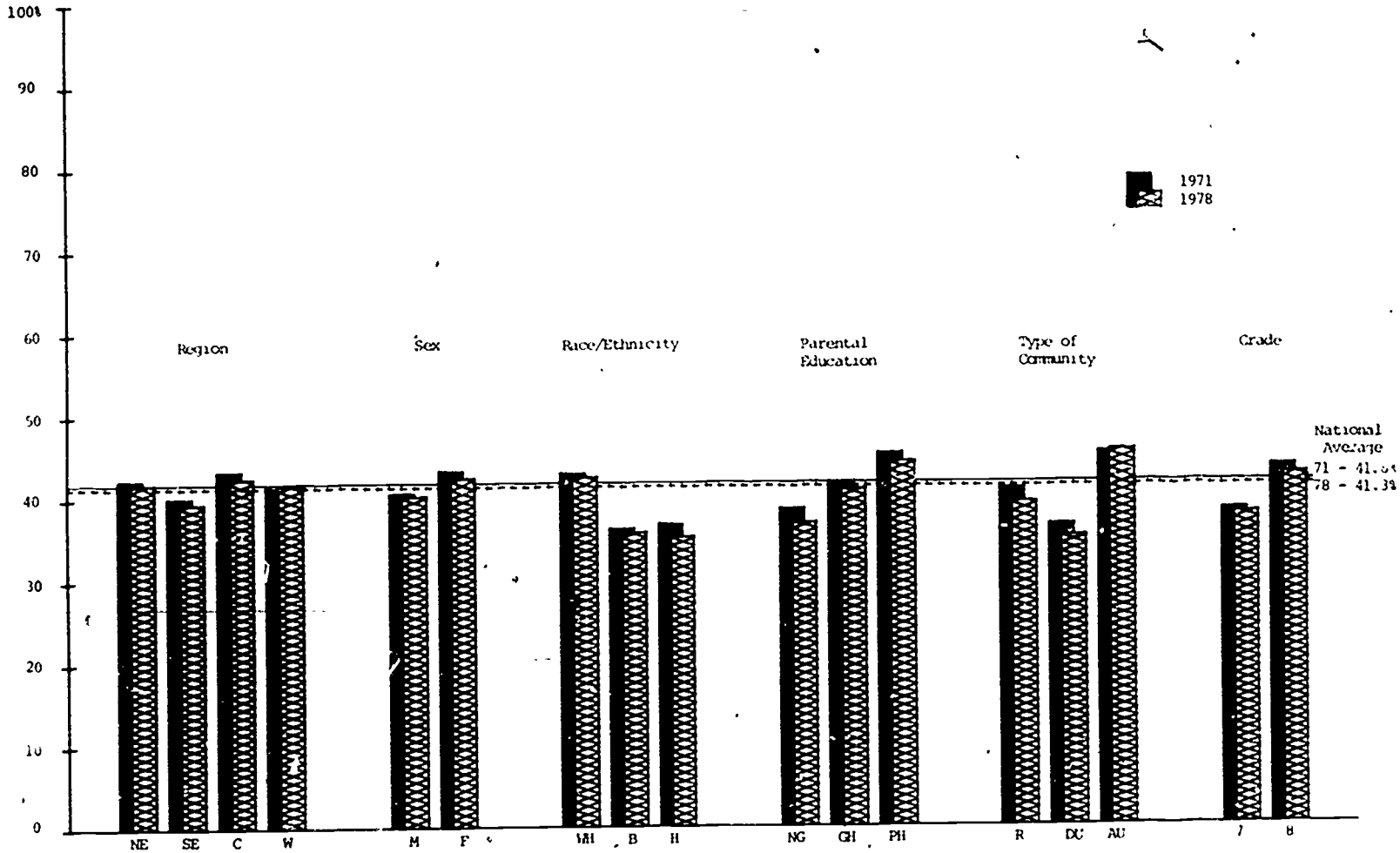
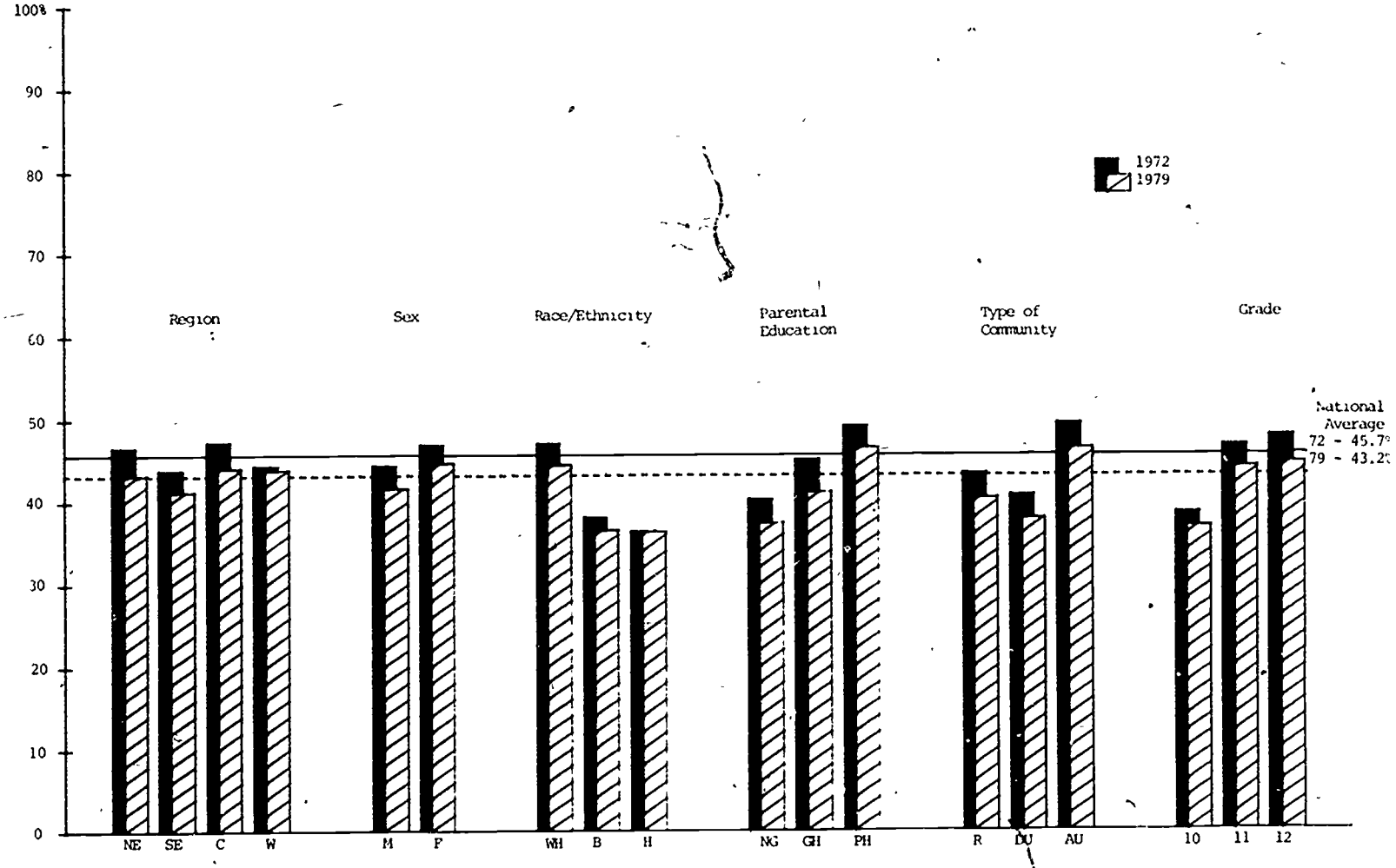


EXHIBIT 6. Average Percentages of Correct Responses for Selected Groups on Music Items, Age 17, 1972 and 1979



- Black students, at ages 13 and 17.
- Hispanic students, at ages 9, 13 and 17.
- Students at ages 9 and 13 who attend schools in disadvantaged-urban communities.

Changes in Achievement by Objective

As mentioned previously, some exercises used in the first assessment were retained for readministration in the second music assessment. Many of these exercises were matched with the newly developed objectives and were administered along with the additional exercises created for the second assessment. Due to funding limitations, those exercises requiring students to perform or to create music (new Objectives II and III) were not readministered, so data on changes in achievement in these two aspects of music achievement are not available.

Results on changes in music achievement for 9-year-olds are available for Objectives IV and V. Results pertaining to changes in attitudes about music are not available for 9-year-olds because this area was measured in individually administered booklets along with the performance exercises in the first assessment. However, 13- and 17-year-olds were surveyed for changes in achievement and attitudes as measured by certain aspects of Objectives I, IV and V.

Table 8 presents a summary of changes in achievement by objectives and subobjectives for the three age populations. This table allows one to identify which of the objectives and subobjectives contributed to the significant declines in achievement for 9- and 17-year-olds first observed in Table 7, which presents mean percentages on all exercises administered twice to the three age populations. The significant decline by 9- and 17-year-olds can be accounted for primarily by their losses on Objective IV. 9-year-olds declined on IVA and IVC, while 17-year-olds declined on IVA, IVB and IVC. Conversely, 13-year-olds showed no significant change in achievement on Objective IV as a whole between the two assessments, although they did decline on IVA. However, readers are cautioned not to overgeneralize about these results because of the small number of exercises used to detect changes in achievement.

On Objective I, 13-year-olds showed a significant increase, although the mean percentages of this age group able to acceptably respond to the music exercises did not change on the total number of exercises administered in the two assessments. Neither 9-, 13- nor 17-year-olds changed significantly in achievement on Objective V between assessments.

Samples of Exercises

Thirteen- and 17-year-olds were administered three exercises in common in both assessments to probe their affective responses as defined by Objective I. These students were asked:

How often do you seek out and read a book, magazine or newspaper article on . . .

1. *musical shows or musical appreciation?*
2. *the lives of composers or performers?*
3. *records, tapes or hi-fi equipment?*

Response choices for these exercises were: (a) every day, (b) a few times a week, (c) once a week, (d) once a month and (e) once a year or less. Percentages of 13- and 17-year-olds who responded at least once weekly (a combination of choices a, b, c) are presented in Table 9. The reader should note that Table 8 displays the mean percentages of 13- and 17-year-olds who responded at least once weekly to all three exercises, while Table 9 presents the percentages of responses to each exercise separately.

The percentages of 13- and 17-year-olds who seek reading materials on musical shows or musical appreciation did not change significantly between assessments, while significantly more 13-year-olds in the second assessment than in the first indicated they seek materials on the lives of composers or performers. Also, significantly more 13-year-olds in the second assessment than in the first indicated they seek materials on records, tapes or hi-fi equipment, while significantly fewer 17-year-olds said they seek materials on records, tapes or hi-fi equipment in the second assessment than in the first.

Following are three examples of Objective IV exercises developed to probe students' knowledge of some aspects of Objective IV. More of the readministered exercises explored students' knowledge of rhythmic and pitch organization and tone quality than knowledge of the relationships of elements in a composition or expression markings. All of the sample exercises displayed used recorded music as the stimulus.

TABLE 8. Music Results: A Summary of Changes in Achievement by Objective and Subobjective, 1971-72 and 1978-79 Assessments

Objective I
Value Music . . .

	Change	No. of Exercises
No Objective I exercises		

	1971	1978		
IC	50.3%	56.6%*	6.3%*	3

	1972	1979		
IC	48.2	45.9	−2.3	3

Objective IV
Identify Elements . . .

Age 9

	1972	1979	Change	No. of Exercises
Mean for Objective IV	51.7%	48.3%	−3.4%*	23
IVA	53.6	49.8	−3.8*	17
IVB	16.8	18.4	1.6	1
IVC	52.0	49.1	−2.9*	5

Age 13

	1971	1978	Change	No. of Exercises
Mean for Objective IV	63.5	61.8	−1.7	27
IVA	68.8	66.2	−2.6*	19
IVB	46.4	44.1	−2.3	2
IVC	52.4	53.8	1.4	6

Age 17

	1972	1979	Change	No. of Exercises
Mean for Objective IV	63.3	58.5	−4.8*	31
IVA	70.4	66.2	−4.2*	20
IVB	60.9	51.5	−9.4*	2
IVC	48.2	42.8	−5.1*	9

Objective V
Identify and Classify . . .

	1972	1979	Change	No. of Exercises
VA	--	--	--	--
VB	--	--	--	--
VC	75.9%	74.0%	−1.9%	2

	1971	1978		
Mean for Objective V	26.1	25.9	−0.2	39
VA	17.1	16.2	−0.9	2
VB	25.0	24.8	−0.2	37
VC	--	--	--	--

	1972	1979		
Mean for Objective V	33.6	32.7	−0.9	46
VA	58.7	58.8	0.2	2
VB	32.5	31.5	−1.0	44
VC	--	--	--	--

*Asterisk indicates percentages statistically significant at the .05 level.

TABLE 9. Percentages of Responses, "At Least Once Weekly," to Three Objective I Exercises Administered to 13- and 17-Year-Olds in Two Assessments

	Age 13			Age 17		
	% of Responses			% of Responses		
	1972	1979	% of Change#	1971	1978	% of Change#
Musical shows or musical appreciation	55.0	55.7	0.7	51.1	51.8	0.7
The lives of composers or performers	35.3	46.4	11.1*	41.0	37.5	−3.6
Records, tapes or hi-fi equipment	60.6	67.6	7.1*	52.6	48.4	−4.2*

 # Figures may not total due to rounding.
** Asterisk indicates percentages statistically significant at the .05 level.*

The first exercise was given to 9-year-olds in the first and second assessments. Although the decline between assessments in percentages of students responding with the correct answer is not significant, the increase in the percentage of students who responded "I don't know" is statistically significant.

Listen carefully to the music. Fill in the oval beside the pattern that shows the direction the tune moves.

	Percent of Responses#		Percent of Change
	1972	1979	
⬭ 	11.3	9.8	−1.5
⬭ 	10.7	8.6	−2.1
⬬ 	54.6	51.0	−3.5
⬭ 	13.0	9.9	−3.1*
⬭ I don't know.	10.0	19.1	9.1*

 # Figures may not total 100% due to rounding.
** Asterisk indicates percentages statistically significant at the .05 level.*

Results on the next exercise, one of those administered to 13-year-olds in both assessments, indicate that significantly fewer students in 1978 than in 1971 responded correctly and that a significant increase occurred between assessments in the percentage of students who answered "I don't know."

Listen carefully to the music. What instrument is playing the melody?

	Percent of Responses ∓		Percent of Change
	1971	1978	
○ Accordion	1.5	3.4	1.9*
○ Celesta	3.3	5.5	2.2*
● Piano	85.1	77.6	−7.5*
○ Xylophone	6.9	9.0	2.1*
○ I don't know.	2.9	4.3	1.4*

∓ *Figures may not total 100% due to rounding.*
* *Asterisk indicates percentages statistically significant at the .05 level.*

The third exercise displayed is one of those given to 17-year-olds in each assessment to probe their achievement on Objective IV. Results show that significantly fewer students in 1979 than in 1972 responded correctly. Moreover, a significant increase occurred between assessments in the percentage of students who answered "I don't know."

Listen carefully to the form of this melody. It has four phrases:

A — A (same) — B (different) — A (same)

Now you are going to hear a different melody in four phrases. It will be played two times. What is its form?

	Percent of Responses ∓		Percent of Change
	1972	1979	
● A A A - B	60.1	52.5	−7.6*
○ A A B - A	9.9	9.8	−0.1
○ A A B B	7.5	7.8	0.3
○ A B B A	9.8	9.5	−0.2
○ I don't know.	12.6	20.0	7.3*

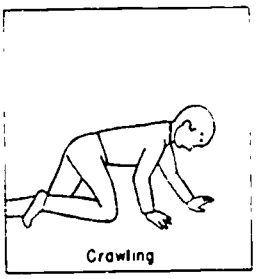
∓ *Figures may not total 100% due to rounding.*
* *Asterisk indicates percentages statistically significant at the .05 level.*

The next two exercises are examples of those administered in both assessments to explore students' ability to recognize features that characterize a variety of folk, ethnic, popular and art music — Objective V. The exercise following was administered to 9-year-olds with an aural stimulus.[2]

[2] [illegible] Chopin [illegible] piano.

Listen carefully to the recording. Fill in the oval beside the picture that is suggested by the music.

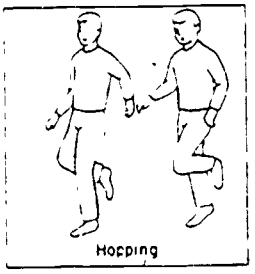
1



3

2

4



I don't know.

		Percent of Responses #		Percent of Change
		1972	1979	
○	1	4.6	2.7	−1.8*
○	2	20.7	23.0	2.3
●	3	57.1	56.6	−0.5
○	4	9.9	7.3	−2.7*
○	I don't know.	6.8	10.0	3.2*

Figures may not total 100% due to rounding.
* Asterisk indicates percentages statistically significant at the .05 level.

Although 9-year-olds did not change significantly in the percentages of youngsters able to give the correct response, the percentages of students responding "I don't know" did increase significantly. Another result of interest is that in each administration of this exercise, one-fifth of the 9-year-olds indicated "skipping" as the correct response after hearing the selection.

The next example exercise, also administered with an aural stimulus,[3] was administered to 13- and 17-year-olds in both assessments to explore their abilities as defined by Objective V.

[3] W. C. Handy, *Yellow Dog Blues*, performed by Louis Armstrong and His All Stars

Listen carefully to the music. What kind of music is being performed?

	Percent of Responses #					
	Age 13			Age 17		
	1971	1978	Change#	1972	1979	Change
● Blues song	80.3	82.7	2.4	94.9	95.1	0.2
○ Folk-rock song	14.9	13.2	−1.7	3.9	2.1	−1.8*
○ Operatic song	1.7	0.9	−0.9*	0.5	0.4	−0.0
○ Work song	1.5	0.7	−0.8*	0.4	0.4	0.1
○ I don't know.	1.3	1.2	−0.1	0.3	0.7	0.4

 # Figures may not total 100% due to rounding.
** Asterisk indicates percentages statistically significant at the .05 level. Standard errors become very small for small percentages. Thus, statistical significance, though real, may be unimportant.*

In each assessment of this exercise, more 17-year-olds than 13-year-olds responded correctly, and neither age population changed significantly in its choice of correct response from one assessment to the next.

Results for the reporting groups on selected subobjectives under Objectives I, IV and V are displayed in Appendix C.

CHAPTER 4

BACKGROUND QUESTIONS: EXPOSURE TO MUSIC

All students participating in the 1978-79 music assessment were asked the same questions about their exposure to musical activities *outside* of school. In addition, 9-year-olds were asked a series of questions to ascertain their exposure to musical activities *in* school, and 13- and 17-year-olds were asked a series of common questions to explore their participation in school musical activities.

Table 10 shows percentages of students, at each age, responding to the same questions about their exposure to musical activities outside of school. Some highlights of these results are:

- More 13- and 17-year-olds than 9-year-olds listen to music, sing just for fun and sing with friends for fun. However, percentages of 9- and 13-year-olds are more similar to each other than to percentages of 17-year-olds who sing with friends for fun. Conversely, more 9-year-olds than 13- or 17-year-olds indicated that they sing in a church or community music group. However, percentages of 9-, 13- and 17-year-olds who do at least one of the singing activities are very similar.
- More 13- and 17-year-olds than 9-year-olds play a musical instrument alone for fun, while more 9-year-olds than 13- or 17-year-olds indicated that they play a musical instrument with friends for fun and play a musical instrument in a community group. In addition, more 9-year-olds than 13- or 17-year-olds indicated at least one activity involving playing an instrument.
- More 9-year-olds than 13- or 17-year-olds take music lessons and make up their own music.

Achievement results for 9-, 13- and 17-year-olds were analyzed by the number of outside musical activities students reported. These results are shown in Table 11.

TABLE 10. Percentages of "Yes" Responses for 9-, 13- and 17-Year-Olds to: Do You Do Any of the Following Activities Outside of School?

	Nation	Region				Race/Ethnicity			Sex		Parental Education			Type of Community †		
		NE	SE	W	C	WH	B	H	M	F	NG	GH	PH	R	DU	AU
A. Listen to music?																
Age 9	38.3%	41.2%	37.0%	38.1%	36.8%	39.5%*	31.2%*	36.0%	36.1%*	40.6%*	29.0%*	37.8%	46.0%*	31.4%*	37.0%	49.0%*
Age 13	90.3	92.0	86.7*	91.4	91.0	92.3*	79.3*	85.2*	87.5*	93.0*	84.1*	90.6	93.9*	84.5*	84.0*	94.5*
Age 17	98.5	98.7	97.7	98.8	98.8	98.9*	96.2*	97.8	97.9*	99.1*	96.5*	98.6	99.3*	97.5	98.1	99.4*
B. Sing just for fun?																
Age 9	45.3	44.9	46.5	44.4	45.5	44.9	46.8	44.9	38.3*	52.5*	43.0	46.0	49.3*	48.2	44.6	51.3*
Age 13	60.1	57.8	66.7*	57.0	58.9	58.2*	72.4*	57.6	47.1*	72.8*	64.1	58.3	61.7	64.3	63.8	56.6
Age 17	71.2	68.7	74.8*	71.4	70.2	69.3*	82.2*	72.3	58.0*	83.7*	71.7	68.6*	73.1*	72.6	72.5	72.3
C. Sing with friends for fun?																
Age 9	39.9	39.0	45.2*	35.9*	40.2	37.5*	51.5*	43.4	30.4*	49.7*	41.8	41.2	40.0	44.4	47.5*	38.8
Age 13	41.3	40.4	47.2*	38.1	39.7	38.1*	60.2*	39.7	24.6*	57.5*	47.5*	40.7	40.5	45.7	52.6*	36.2
Age 17	48.9	49.6	52.2	48.1	46.1	46.7*	62.1*	50.6	34.4*	62.7*	49.8	46.9	50.1	48.2	51.9	49.5
D. Sing in a church or community music group?																
Age 9	43.6	38.5*	49.5*	42.7	44.1	40.9*	55.6*	54.8*	42.4	44.9	49.6	42.9	42.7	50.4*	53.1*	40.1
Age 13	26.8	20.1*	36.8*	22.8*	27.4	24.3*	43.2*	26.5	22.6*	30.9*	32.0*	25.9	26.0	39.2*	30.0	19.7*
Age 17	29.3	12.9*	30.7*	19.8	19.3	18.1*	37.8*	16.1	15.1*	25.4*	22.5	18.9	20.6	30.2*	19.0	16.0
Summary: at least one of B, C or D above																
Age 9	74.9	71.8	79.9*	72.9	75.5	72.9*	83.7*	81.3	69.0*	81.0*	79.4	75.2	75.8	80.0	81.6*	74.9
Age 13	72.1	68.8	79.4*	68.2*	71.6	69.5*	87.1*	74.0	59.6*	84.2*	77.5*	70.7	72.1	78.3*	78.9*	65.6*
Age 17	76.3	73.8	81.0*	76.7	74.4	74.1*	90.3*	78.5	63.8*	88.3*	78.2	74.1*	77.6	78.4	78.9	77.6
E. Play a musical instrument by yourself for fun?																
Age 9	35.3	37.6	35.3	35.0	33.4	34.7	36.0	37.6	35.9	34.7	33.5	35.3	39.6*	32.7	36.7	37.7
Age 13	40.3	38.2	38.6	43.0	41.6	41.3	34.7*	34.4	38.5*	42.1*	31.3*	37.0*	47.1*	38.2	36.1	45.7
Age 17	39.2	36.9	37.6	42.5*	39.7	46.3*	31.9*	30.9*	35.6*	42.7*	27.9*	34.3*	45.9*	37.4	35.2	41.6
F. Play a musical instrument with friends for fun?																
Age 9	26.2	26.4	30.6*	24.5	23.7	23.7*	35.5*	35.4*	26.0	26.4	28.6	27.0	26.2	28.1	35.1*	23.4
Age 13	22.5	19.4*	24.0	23.9	22.8	21.2*	27.8*	21.9	22.0	23.0	21.1	21.3	24.5*	24.5	23.5	21.3
Age 17	21.6	20.2	22.2	23.7	20.4	21.3	22.4	20.2	22.1	21.0	17.6*	18.7*	24.6*	20.9	20.8	21.5

TABLE 10. (continued)

	Nation	Region				Race/Ethnicity			Sex		Parental Education			Type of Community†		
		NE	SE	W	C	WH	B	H	M	F	NG	GH	PH	R	DU	AU
G. Play a musical instrument in a community group?																
Age 9	20.1	18.5	26.4*	18.7	17.3	16.6*	35.7*	33.2*	20.5	19.8	30.0*	20.5	18.0*	23.9	35.0*	13.2*
Age 13	10.6	8.7*	11.7	10.0	11.8	9.8*	15.2*	11.6	10.3	10.9	9.6	9.3	11.9*	13.1	13.4	8.1
Age 17	8.2	6.7	10.0	8.0	8.3	8.0	9.9	5.4	8.0	8.4	5.5*	6.5*	10.0*	8.5	6.5	6.1
Summary. at least one of E, F or G above																
Age 9	53.4	54.1	58.3*	51.8	50.0*	50.2*	66.2*	63.8*	53.5	53.4	57.6	54.6	55.0	55.7	66.8*	49.8
Age 13	42.0	44.0	46.6	49.4	47.8	46.4	48.5	42.5	45.1*	48.7*	40.2*	43.4*	53.1*	46.9	46.6	49.7
Age 17	41.8	39.5	40.6	44.9	42.1	42.3	38.2	34.2	38.4*	45.1*	31.8*	36.8*	48.1*	40.5	38.9	43.4
H. Take music lessons?																
Age 9	36.3	39.4	37.1	35.7	33.3	33.3*	48.1*	49.9*	33.6*	39.1*	35.7	35.0	39.3*	37.1	47.5*	36.0
Age 13	23.0	23.1	21.0	23.2	24.5	22.5	25.1	23.2	20.4*	25.5*	16.2*	19.8*	28.2*	21.3	25.7	25.3
Age 17	11.9	11.8	11.4	12.1	12.1	12.0	11.3	8.7	9.8*	13.8*	7.0*	8.7*	15.2*	10.7	9.8	12.8
I. Make up your own music?																
Age 9	50.3	49.2	54.0*	47.9	50.6	48.6*	59.8*	52.5	47.4*	53.4*	53.5	51.6	51.8	53.6	54.3	47.3
Age 13	36.7	35.2	40.4*	34.4	36.8	34.1*	54.0*	34.4	36.1	37.2	40.2	35.0	36.9	40.0	46.8*	32.1
Age 17	28.3	26.5	30.5	29.4	27.1	26.5*	42.6*	23.1	30.0*	26.7*	27.4	25.9*	30.0*	28.4	30.7	25.7

** Asterisk indicates percentages statistically significant at the .05 level.*

† This population group represents about one-third of the sample.

TABLE 11. National Mean Percentages of Acceptable Responses to 1978-79 Music Exercises for 9-, 13- and 17-Year-Olds by Number of Outside Musical Activities

	Age 9 78 Exercises	Age 13 125 Exercises	Age 17 126 Exercises
Nation	57.3%	52.3%	50.0%
1 outside activity	55.9*	47.6*	43.3*
2 outside activities	56.9	51.1*	47.2*
3 outside activities	57.7	52.9*	52.2*
4 outside activities	58.2*	55.9*	56.3*
5 or more outside activities	63.3*	59.3*	61.7*

** Asterisk indicates percentages statistically significant at the .05 level.*

Achievement results are higher among those students with the greater number of outside musical activities at each age. This pattern is particularly noticeable at age 17, where those with five or more outside musical activities show achievement results of 18 percentage points higher than those students who reported only one outside musical activity.

Tables 12, 13 and 14 show the percentages of 9-year-olds responding to questions concerning the number of years they were taught music in school.

Results for 9-year-olds shown in Table 12 suggest an interesting difference between certain groups of students and the nation in exposure to music in school. More students in certain groups indicated being taught music in school in 1978-79 than students nationally. These are:

- Students in the Central region of the country.
- Students who are white.
- Students who are female.
- Students with at least one parent who has had some post high school education.
- Students who attend schools in advantaged-urban communities.

On the other hand, fewer students in certain groups indicated being taught music in school in 1978-79 than students nationally. These are:

- Students who are male.
- Students who are black.
- Students who are Hispano.
- Students who attend schools in disadvantaged-urban communities.

When asked "Were you taught music in school last year (1977-78)?" some changes occurred in the pattern of responses seen in the previous question (Table 13). For example, percentages of males and females who responded affirmatively to the question are not significantly different than those for 9-year-olds nationally. More students nationally had music in the 1977-78 school year than students in the Western region, students who are black or Hispanic and students who attend school in disadvantaged-urban communities.

TABLE 12. Percentages of "Yes" Responses for 9-Year-Olds to: Are You Being Taught Music in School This Year?

	Age 9
Nation	84.4%
Region	
Northeast	86.9
Southeast	83.2
West	77.2
Central	90.8*
Race/ethnicity	
White	86.7*
Black	75.0*
Hispano	71.1*
Sex	
Male	83.0*
Female	85.8*
Parental education	
Not graduated high school	81.6
Graduated high school	85.1
Post high school	86.9*
Type of community ÷	
Rural	82.2
Disadvantaged urban	72.0*
Advantaged urban	91.2*

** Asterisk indicates percentages statistically significant at the .05 level.*

÷ This population group represents about one-third of the sample.

TABLE 13. Percentages of "Yes" Responses for 9-Year-Olds to: Were You Taught Music in School Last Year?

	Age 9
Nation	77.9%
Region	
Northeast	80.6
Southeast	77.7
West	66.4*
Central	87.8*
Race/ethnicity	
White	80.5*
Black	68.7*
Hispano	57.9*
Sex	
Male	76.9
Female	78.8
Parental education	
Not graduated high school	74.7
Graduated high school	79.4
Post high school	86.4*
Type of community ÷	
Rural	78.1
Disadvantaged urban	67.0*
Advantaged urban	84.4

** Asterisk indicates percentages statistically significant at the .05 level.*

÷ This population group represents about one-third of the sample.

Table 14 presents the results of an analysis to ascertain the percentages of students nationally and in the reporting groups who responded affirmatively to both of the questions displayed in Tables 12 and 13.

TABLE 14. Percentages of "Yes" Responses for 9-Year-Olds to Both Questions Shown in Tables 12 and 13

	Age 9
Nation	73.2%
Region	
Northeast	76.4
Southeast	73.8
West	59.9*
Central	83.9*
Race/ethnicity	
White	76.9*
Black	59.6*
Hispano	48.5*
Sex	
Male	71.7
Female	74.6
Parental education	
Not graduated high school	68.5
Graduated high school	71.7
Post high school	76.6*
Type of community †	
Rural	74.4
Disadvantaged urban	55.8*
Advantaged urban	80.8

** Asterisk indicates percentages statistically significant at the .05 level.*

† This population group represents about one-third of the sample.

Groups with significantly more students than students nationally who had music both years are:

- The Central region.
- Whites.
- The post-high-school group

Groups with significantly fewer students than students nationally who had music both years are:

- The Western region.
- Blacks.
- Hispanos.
- Disadvantaged urban.

Achievement results for 9-year-olds on the total number of exercises and on exercises within selected subobjectives were analyzed by the number of years students were taught music in school. These results are shown in Table 15.

Students who indicated that they had been taught music in school for two years (1977-78 and 1978-79) performed about 4% better on all music exercises than those who had been taught music in school for only one year and 6% better than those who had not been taught music in school in either year. Those who had been taught music in school for two years also performed from 4-11% points better on the various subobjectives in Objectives IV and V than did other students.

At age 9, music instruction in school and outside musical activities are positively related to achievement results. Although both appear to make a substantial contribution to achievement, it appears that outside musical activities may have slightly more impact.

¢ ¢ ¢ ¢ ¢ ¢ ¢

Nine-year-olds were asked whether they had certain activities in their school music class. Percentages of responses to the questions are displayed in Table 16.

The activities receiving the largest percentages of affirmative responses by 9-year-olds are "listen to music" (74.0%) and "sing just for fun" (45.0%). The activity receiving the smallest percentages of affirmative responses is "play a musical instrument in a special music group" (13.7%).

Table 17 shows the percentages of 13- and 17-year-olds who indicated participation in musical activities in school and the length of time they have participated in certain musical activities. More students at both ages indicated participation in general music classes than in the specialized musical activities. The percentage of

TABLE 15. National Mean Percentages of Acceptable Responses to 1978-79 Music Exercises for 9-Year-Olds by Number of Years "Taught Music in School"

		Selected Subobjectives				
		IVA	IVB	IVC	VA	VB
	78 Exercises	31 Exercises	3 Exercises	11 Exercises	6 Exercises	7 Exercises
Nation	51.5%	55.5%	39.0%	45.5%	53.3%	51.1%
1977-78 and 1978-79	59.0*	57.3*	40.0*	47.4*	54.8*	53.3*
1977-78 or 1978-79	53.8*	51.6*	38.6	43.0*	48.8*	45.5*
Neither year	51.7*	50.2*	34.0*	36.1*	51.0	46.4

* *Asterisk indicates percentages statistically significant at the .05 level.*

students who indicated they have never taken the specialized activities are fairly large at each age. However, more students at ages 13 and 17 seem to have participated in either band or orchestra than in the music literature, history/music theory or composition type of activity.

Response data shown on Table 17 (participation in school musical activities) were analyzed by achievement results for 13- and 17-year-olds. Table 18 displays the outcome of this analysis.

As might be expected, those 13- and 17-year-olds who have participated in school musical activities and classes performed better than those students who have not. Moreover, longer participation is associated with greater achievement. Achievement results are 12 to 13 percentage points different between students who have had no band or orchestra and those who have had at least three years of participation in this activity. Also, achievement results are 6 to 9 percentage points different between students who have not participated in choir or glee club and those who have participated for at least three years. Generally, participation in band or orchestra appears to influence achievement results to a greater extent than choir or glee club.

TABLE 16. Percentages of Responses for 9-Year-Olds to: In Your School Music Class, Do You . . .

		Region				Race/Ethnicity			Sex		Parental Education			Type of Community†		
	Nation	NE	SE	W	C	WH	B	H	M	F	NG	GH	PH	R	DU	AU
A. Listen to music?																
Yes	74.0%	77.4%	74.4%	63.3%*	81.9%*	76.4%*	65.8%*	59.6%*	72.3%*	75.8%*	71.9%	76.1%	76.5%*	73.8%	62.0%*	80.1%
No	9.7	8.9	8.4	13.4*	7.5	9.4	9.6	11.3	10.3	9.0	8.8	8.7	9.7	7.9	9.4	10.4
B. Sing just for fun?																
Yes	45.0	46.6	41.5	42.8	49.4	47.4*	35.4*	31.0*	42.7*	47.5*	37.7*	44.5	49.8*	44.5	33.7*	52.9
No	38.0	39.1	40.7	34.0	38.7	37.8	39.6	39.9	39.4	36.6	42.7	39.8	35.3*	36.3	38.5	35.8
C. Sing in a choir, chorus or glee club?																
Yes	23.1	27.5	22.9	20.4	22.0	21.5*	31.6*	26.9	20.8*	25.5*	23.5	24.1	24.1	20.3	28.4	23.5
No	58.6	57.4	57.7	54.3	65.1*	62.4*	42.0*	42.2*	60.0	57.2	55.0	58.8	61.0	58.4	40.8*	65.4
D. Play a musical instrument just for fun?																
Yes	29.5	30.6	31.2	28.4	28.0	29.9	27.4	24.5	29.1	29.8	29.0	29.7	33.0*	26.6	26.2	31.6
No	53.7	55.6	50.7	47.9*	60.6*	55.4*	47.7*	45.4	53.0	54.4	52.1	54.6	52.7	54.0	46.2	57.2
E. Play a musical instrument in a special music group?																
Yes	13.7	18.2*	13.3	12.8	10.3*	12.3*	20.8*	16.5	14.0	13.4	14.7	14.1	15.1	11.8	19.7	11.7
No	70.0	68.5	68.7	64.2	79.3*	73.8*	53.3*	53.8*	68.9	71.2	65.8	70.5	71.5	69.2	52.0*	78.5*
F. Read about music or musicians?																
Yes	30.2	31.2	33.2	23.4*	33.5	29.5	34.7	29.8	28.9	31.5	31.1	31.7	32.6*	32.3	32.0	31.9
No	52.1	54.4	47.6	52.0	54.1	54.9*	39.3*	39.2*	52.5	51.7	48.3	51.5	52.6	47.1	39.3*	56.8
G. Make up your own music?																
Yes	24.8	26.3	25.8	21.8	25.5	23.5*	32.8*	24.7	24.1	25.6	28.8	24.8	25.1	22.3	30.0	20.0
No	58.7	60.2	56.5	54.8	63.6	62.2*	42.8*	46.4*	58.6	58.9	52.6	59.3	60.8	59.4	42.5*	69.7*

**Asterisk indicates percentages statistically significant at the .05 level.*
† This population group represents about one-third of the sample

TABLE 17. Percentages of Responses for 13- and 17-Year-Olds to Participation in Musical Activities in School

Including elementary and junior high school, how many years have you taken or participated in . . .

	Percent of Responses≠	
	Age 13	Age 17
A. General music class or music appreciation?		
Have never taken	27.6	18.4
Less than 1 year	11.3	13.5
1 to 2 years	14.1	22.6
3 to 4 years	12.5	16.8
5 or more years	30.9	28.3
B. Choir, chorus or glee club?		
Have never taken	48.6	16.5
Less than 1 year	17.8	12.5
1 to 2 years	19.9	22.5
3 or more years	13.0	17.8
C. Band or instrumental music?		
Have never taken	50.0	51.8
Less than 1 year	17.9	13.9
1 to 2 years	14.1	12.8
3 to 4 years	12.6	9.2
5 or more years	4.4	11.7
D. Orchestra?		
Have never taken	91.3	90.3
Less than 1 year	3.1	2.8
1 to 2 years	2.6	3.1
3 to 4 years	1.5	1.7
5 or more years	0.7	1.5
Combination of C and D		
Have never taken	18.5	50.7
Less than 1 year	18.2	14.1
1 to 2 years	14.9	13.2
3 or more years	17.9	21.6
E. Introduction to music, music literature or music history?		
Have never taken	63.3	64.8
Less than 1 year	18.5	18.4
1 to 2 years	10.3	12.0
3 to 4 years	3.7	2.3
5 or more years	3.6	1.8
F. Music theory class or music composition?		
Have never taken	78.7	83.3
Less than 1 year	11.1	9.1

TABLE 17. Percentages of Responses for 13- and 17-Year-Olds to Participation in Musical Activities in School (cont.)

Including elementary and junior high school, how many years have you taken or participated in . . .

	Percent of Responses#	
	Age 13	Age 17
1 to 2 years	5.7	5.1
3 to 4 years	2.0	1.0
5 or more years	1.7	0.8
Combination of E and F		
Have never taken	57.6	61.4
Less than 1 year	20.8	19.6
1 to 2 years	12.0	13.4
3 or more years	9.1	5.0

 # Figures may not total 100% due to rounding.

TABLE 18. National Mean Percentages of Acceptable Responses to 1978-79 Music Exercises for 13- and 17-Year-Olds by Participation in School Musical Activities

	Age 13 125 Exercises	Age 17 126 Exercises
Nation	52.3%	50.0%
General music class		
Never taken	47.8*	44.6*
Less than 1 year	49.9*	46.4*
1-2 years	53.0*	49.3*
3-4 years	55.5*	51.4*
5 or more years	56.2*	55.3*
Band/orchestra		
Never taken	48.9*	46.1*
Less than 1 year	51.4*	48.4*
1-2 years	55.5*	51.9*
3 or more years	60.5*	59.3*
Choir or glee club		
Never taken	50.2*	47.0*
Less than 1 year	52.3	48.9*
1-2 years	55.2*	52.0*
3 or more years	56.7*	56.3*
Introduction to music		
Never taken	50.8*	48.2*
Less than 1 year	53.1*	51.1*
1-2 years	56.0*	55.1*
3 or more years	56.5*	54.6*

** Asterisk indicates percentages statistically significant at the .05 level.*

CHAPTER 5

RESULTS OF THE SECOND MUSIC ASSESSMENT: SOME INTERPRETIVE COMMENTS

Three music educators, who had participated in the development of the second music assessment, met in Denver with National Assessment staff to consider the results presented in the preceding chapters of this report. Participating in this meeting were: Dr. Richard M. Graham, University of Georgia; Dr. Kevin J. McCarthy, University of Colorado; and Dr. Diana V. Owen, an independent music education specialist from Denton, Texas.

Panel members' observations provide a context for considering the results of the two music assessments and offer some views about the state of music education in American schools. Their opinions are theirs alone and do not necessarily represent either the views of the institutions with which they are affiliated or those of the National Assessment of Educational Progress, the Education Commission of the States or the National Institute of Education.

A Perspective on the Music Results

The purposes of the second assessment in music were: (1) to detect changes in music achievement among American youth over the seven years since the first assessment, and (2) to provide a baseline measure of achievement on the new music objectives.

As the second assessment was being planned, it became clear that budgetary constraints would not allow for the reassessment of students' achievement in musical performance or in creating music. Prior to continuing the planning process, NAEP polled the members of the 1972-73 music development panel to determine the viability of an assessment that would not include these two areas. The panel of developers concluded that the second assessment should continue, even though it would be limited in scope.

Despite these limitations, the second music assessment yielded results of interest to those involved in music education in American schools — administrators, teachers, parents and students. In summary, two major findings from the second assessment are:

- Students at all three ages value music, as evidenced by the rather high percentages who gave positive responses to Objective I exercises.
- Students at all three ages appear to have a somewhat superficial understanding of musical notation and terminology and the history of music, as demonstrated by results on exercises measuring Objectives IV and V.

Following are some of the impressions and observations of panelists about the results of the second music assessment. Some of their generalizations are based upon the results of only a few exercises. Although recognizing that the number of exercises are often not sufficient to support definitive statements, the panelists believe these generalizations should be made in order to stimulate further discussion about music education in the schools.

Objective I — Value Music as an Important Realm of Human Experience

While encouraged with results indicating that 9-, 13- and 17-year-olds generally value music, panelists concurred in their concern that fewer students at age 17 (61%) than at age 13 (66%) gave positive responses to the same eight exercises assessing the degree to which they value music in their lives or in the life of the family or community. Remarks by panel members focused on this result.

McCarthy commented:

It is likely that contemporary electronic technology has contributed greatly to the 17-year-olds' tendency to listen to music alone. They have their own stereo sets — frequently with ear phones — car radios, portable tape players, and so forth. There is no need to join the family around the piano or before the radio for musical experiences as was the case a few generations ago.

Owen added

Today's teenagers still value music but simply prefer to have their own music whenever and wherever they choose to have it

Additional comments touched upon the need for continuing education programs in music that would bring adolescents and adults together to share musical experiences as a means of increasing the value of music as a family and community matter.

Objective IV — Identify the Elements and Expressive Controls of Music

Panelists noted that more than 50% of the 9-, 13- and 17-year-olds were successful in answering their respective sets of exercises designed to assess this area. To examine growth in ability across ages, results on those exercises administered to two or more age groups were compared. On an exercise assessing ability to identify the relationships among elements in a given musical composition, percentages of correct response increased from age 9 to age 13. However, the mean percentages of students able to perform these kinds of tasks did not differ significantly on five exercises from age 13 (37%) to age 17 (38%). One would hope to see more 17-year-olds with this kind of knowledge than 13-year-olds

Graham remarked:

It appears that schools are having relatively little impact on the adolescent's interests and abilities as these relate to notating, arranging and composing music. We may be observing the effect of practically no music theory being taught in secondary schools

Thirteen- and 17-year-olds' performance was also compared on nine exercises measuring the understanding of a variety of musical terms and expression markings administered in a musical context. Slightly fewer 17-year-olds (48%) than 13-year-olds (50%) were successful in answering these exercises. Again, one would hope to see more 17- than 13-year-olds with this kind of knowledge.

Panel members concurred that this pattern results from a lack of reinforcement or use of the musical information taught in general music classes. Unless a student deals with musical terms and expression markings, he or she will probably not retain this knowledge in the secondary school situation. Members were in agreement that this body of knowledge comes from *directed* musical experiences.

Graham summed up these observations by remarking:

It is important for all people concerned with music education in America to understand that musical literacy, and all but the most superficial comprehensions of music must be nurtured to be sustained. The fact that a greater number of 13-year-olds than 17-year-olds demonstrated understanding of these musical concepts points out the clear need for additional music education opportunities in the nation's high schools — opportunities that are as attractive as our performing groups, but which may not require extensive performing skills.

Objective V — Identify and Classify Music Historically and Culturally

Results on Objective V exercises (in Chapter 2) indicate that an average of 58% of the 9-year-olds responded correctly to the total number of exercises administered to them, while only 36% of the 13-year-olds and 38% of the 17-year-olds responded correctly to their respective sets of exercises. To determine growth across age levels, results on exercises administered to all three ages were examined. Achievement increased with age on tasks presented with aural stimulus that require students to describe features characteristic of various musics. On eight exercises administered to both 13- and 17-year-olds, significantly more 17-year-olds (71%) than 13-year-olds (62%) were successful.

McCarthy made an observation concerning this

finding:

> The fact that more 17-year-olds than 13-year-olds were able to answer these exercises seems to indicate that students gain this ability with age — not just through maturity, but, perhaps, with guided or unguided practice. Since Objective I results indicate that interest in music remains high at all ages, students will be exercising their crucial discrimination abilities and furthering their knowledge of folk, ethnic, popular and art music as they get older, even if they are not in a structured music class.

The overall mean percentages for 13- and 17-year-olds on Objective V exercises were lowered by performance on exercises that require students to identify and describe the music and musical style of various stylistic periods in Western civilization. Again, viewing the results on exercises administered to both 13- and 17-year-olds, panelists were concerned that more students at each age could not successfully perform these tasks. On 40 exercises administered to both age groups, the mean percentage of success was 26% for 13-year-olds and 32% for 17-year-olds. Although more 17-year-olds than 13-year-olds responded correctly, panel members were concerned that less than one-third of the 17-year-olds were successful.

Speculating on factors that may be associated with the low percentages of 13- and 17-year-olds able to respond correctly to these exercises were Graham and McCarthy. Graham made this observation:

> The second music assessment included exercises that require students to have read a good deal about music. For example, knowledge of instruments such as the balalaika, the shofar, the sitar and the alphorn and the cultures that produced these instruments implies a good deal of reading on a fairly advanced level. Although NAEP data indicate an overall increase in reading skills among 9-year-olds, there has not been an accompanying general improvement among 13- and 17-year-olds. To respond correctly to the exercises in VB would indicate more extensive reading (hot music) experiences among 13- and 17-year-olds than current NAEP data from the reading assessments would lead us to believe occurs normally.

McCarthy commented:

> Results for Objective V show that hard facts about the history of music and how a culture utilizes music tend to be forgotten the farther the student gets from the structured music class.

Owen pointed out that these exercises are extremely difficult — the types of exercises that would be appropriate for a college music history class. She remarked:

> There are very few high schools across the nation that offer a course in music history where students could attain that type of specific knowledge of music history.

When considered from this perspective, results for 13- and 17-year-olds are not as alarming since more than one-third of the students at each age were successful in answering exercises deemed appropriate for their age level.

Changes in Music Achievement

Results presented in Chapter 3 of this report indicate that 9- and 17-year-old students declined in music achievement during the seven years between assessments. However, 13-year-olds remained stable during the interval. Following are some of the panel members' comments about this situation.

Owen said:

> I am disappointed, but not surprised, that there was a decline for the 9- and 17-year-olds. The formal music education experience for these two age groups is noticeably lacking. Thirteen-year-olds across the nation would have had the most opportunities for formal music education experience.

Reflecting a similar opinion, Graham commented about the stability of the 13-year-olds between the assessments:

> Part of the answer to the question about stability among 13-year-olds must rest in these facts: (1) this population has just completed a year or so of music education in which they were more likely to have studied with a certified music educator than at any earlier period in their school career; (2) during those years, their music efforts have been group efforts with a minimum of com-

petitive situations characterized by evaluations, criticisms and ratings such as they will face in district festivals in the four or so remaining years of high school; and (3) many of the exercises given to 13-year-olds bear upon the kinds of information offered in general music classes (grades 7, 8 and 9). Moreover, this situation has not changed greatly during the years since the first assessment.

Panel members noted that the decline between assessments for 9- and 17-year-olds occurred on those exercises designed to measure students' knowledge of the elements and expressive controls of music. This performance pattern for 9- and 17-year-olds is also evident in the results of the new exercises administered in the second assessment.

General Impressions About Students' Exposure to Music

For the most part, panel members were enthusiastic about the results presented in Chapter 4 of this report. Following are some of the highlights of their comments.

- It is not surprising that fewer 9-year-olds than older students "listen to music," "sing just for fun" and "sing with friends for fun" (Table 10). Nine-year-olds have less control over the record and tape players, radios and television sets in their homes than do the older children.
- The nature of music education in the third and fourth grades is more conducive to "making up music" than music education in grades 7 and 8 or grades 10, 11 and 12 (Table 10). Thirteen-year-olds experience music under an instrumental or choral director where adherence to an established pulse and playing the correct notes is the criteria for success. The younger students study music in classes where one may expect to find more opportunities and encouragement for creativity than students in the upper grades find.
- The greater participation of 9-year-olds (Table 10) than of 13- and 17-year-olds in "church or community music groups" is tied to the fact that more of the younger students attend Sunday school, hold memberships in or attend youth groups such as 4-H, scouts, summer camps, and so forth. Groups of this type have singing as a regular activity. As children grow older, many do not maintain memberships or interest in these groups.
- Results that show that few 9-year-olds "play a musical instrument" are not surprising because children this age often have never experienced playing a musical instrument (Table 5). Similarly, 9-year-olds may be more familiar with "drawing or painting" than with "playing a musical instrument" because the classroom teacher in the lower grades can and often does teach drawing and painting. However, the same teacher would probably be reluctant to teach a musical instrument.

Concurring with this observation, Owen added:

> It would be wonderful if high school students could have their choice of music classes — music appreciation, music theory and history — in addition to the performing classes. Currently, students are offered only the performing experiences, and these are not at the beginning level. Very few high schools offer a beginning course in instrumental music. So, to be part of a high school band or orchestra, the student must already know how to play an instrument.

Graham supported this position but spoke in defense of the high school instrumental program:

> We music educators understand the need for more diverse course offerings at the high school level, and in our quest for them, we sometimes forget to give the instrumental program the credit it deserves. The second assessment shows that students in band and orchestra programs did better on all aspects of the assessment than students who had only had general music, or only choir or glee club, or who had had only an "introduction to music" course.

This statement is substantiated by the data presented in Table 18 that show that national mean percentages of acceptable responses to the 1978-79 assessment for 13- and 17-year-olds who participated in school musical activities were higher than means for students who did not participate in musical activities. Not only were the means higher for students who took band or orchestra than for those who took noninstrumental music courses, but the longer students were in band or orchestra, the more likely they were to respond correctly to the music assessment exercises.

Panel members lamented the fact that instrumental

music experiences were available to so few students, generally, and to so few beginners on the high school level. The feeling was expressed that more candidates for high school instrumental programs might be forthcoming from what appeared to be an increasing number of *Orff Schulwerk*[1] programs around the country. Graham seemed to discount this possibility because of increasing expenses for such programs. He states:

> Fewer elementary, middle and junior high schools are able to offer beginning instrumental music programs today than only a few years ago because of the rapidly rising costs of musical instruments. This is true for the *Orff Schulwerk* instruments and for traditional band and orchestra instruments. Even some long-standing programs are being cut back because school districts are unable to repair or replace instruments.

---

[1] *Orff Schulwerk* [illegible] music education program developed by a German composer, Carl Orff. [illegible] that music learning begins with [illegible] experience. The *Orff Schulwerk* program uses instruments such as [illegible] rhythm experiences.

Panel members concurred that many school districts have had to cut back on music expenditures in recent years. These cuts usually center on the structured classroom portion of the program (including purchase and repair of instruments), which means that fewer required music classes are available at middle and junior high school levels and fewer electives in music are available at the senior high school level than in previous years. Panel members recalled, however, that music performance programs tend to endure and are usually retained even in times of budgetary constraints.

The members of the panel were optimistic about the future of the instrumental music program in America and hopeful about general music and greater course diversity throughout the school program in the not-too-distant future. The members of the panel expressed the belief that practically all music educators would like to see more music courses and more variety in music course offerings — particularly for the nonperforming student.

APPENDIX A

PARTICIPANTS IN DEVELOPMENT FOR THE SECOND ASSESSMENT

Leon Adams
Little Rock, Arkansas

Barbara Andress
Tempe, Arizona

James B. Andrews
Charleston, West Virginia

JoAnn Baird
Boulder, Colorado

Walter Barnam
Seattle, Washington

Ellen J. Bartlett
Evanston, Illinois

Duane Bird Bear
Lakewood, Colorado

Donald Beene
Los Alamos, New Mexico

Charles H. Benner
Cincinnati, Ohio

Betty Lou Berland
Havre, Montana

Lois Best
Gig Harbor, Washington

Dennis Biastock
Anchorage, Alaska

Don Bookout
Lander, Wyoming

Barbara Bowers
Wichita, Kansas

Doris Breedlove
Stillwater, Oklahoma

Hobart R. Brown
Ferndale, California

Thora Kelly Brown
Philadelphia, Pennsylvania

Alex Campbell
Lakewood, Colorado

Emily G. Carpenter
Fredonia, New York

Margaret Cassario
Denver, Colorado

Virginia Chambers
Madison, Wisconsin

Ed Clemo
University, Alabama

Richard Colwell
Urbana, Illinois

Ruth A. Colwell
Urbana, Illinois

Lois Ann Connelly
Apopka, Florida

Lynne McMorran Cooksey
Hastings, Nebraska

Melvin D. Cooksey
Hastings, Nebraska

Richard G. Cox
Greensboro, North Carolina

Mrs. Frank Crockett*
Atlanta, Georgia

Methel Cummings
Huntington, West Virginia

B. Nail Davis
Lakewood, Ohio

Clyde R. Dengler
Upper Darby, Pennsylvania

Ruby Dixon
Frankfort, Kentucky

Howard Doolin
Miami, Florida

Thomas P. Egan
Boulder, Colorado

Jose Fajardo
Denver, Colorado

Ernestine Ferrell
Jackson, Mississippi

Carol G. Finch
Wheeling, Illinois

Pat Fitzgerald
West Liberty, West Virginia

Karen M. Fitzpatrick
Lakewood, Colorado

Geneva S. Folsom
Reston, Virginia

Howard Freeman
Boise, Idaho

Gerald Fuch
Savannah, Missouri

Kenneth Geogroy
South Bend, Indiana

Bobbie Germany
Baton Rouge, Louisiana

Robert G'Sidden
Tallahassee, Florida

Dorothy B. Goodpasture
Wichita, Kansas

Allen Goodwin
Denton, Texas

Richard M. Graham
Athens, Georgia

Janet Greene
Vienna, West Virginia

Barbara Greenoble
Littleton, Colorado

Paul Haack
Lawrence, Kansas

Sister Tobias Hagan
St. Louis, Missouri

Marsha Hallett
Renton, Washington

Dale M. Hamilton
Denver, Colorado

Wayne J. Harell
Florissant, Missouri

Tom Hibino
Chicago, Illinois

Gretchin Hieronymus
Boulder, Colorado

Edwin S. Hill
Huntsville, Alabama

Marie Hill
Austin, Texas

E'Rena Hockenbetry
WheatRidge, Colorado

Jean C. Hoem
McMinville, Oregon

Charles Hoffer
Bloomington, Indiana

Betty Hoffman
Deer Lodge, Montana

Mary E. Hoffman
Urbana, Illinois

Beverly W. Hogan
Jackson, Mississippi

Sara Holroyd
Lexington, Kentucky

Myrabel Hollowell
Wichita, Kansas

Jeanne Hook
Albuquerque, New Mexico

Richard Houser
Seattle, Washington

William Hughes
Mount Pleasant, Michigan

Ruth Jewell
Raleigh, North Carolina

Carl E K. Johnson
Denver, Colorado

Dale Kempter
Albuquerque, New Mexico

William Koerper
Detroit, Michigan

Ed Krenz
Bellevue, Washington

Richard A. Kusk
Colorado Springs, Colorado

Margie S[illegible] Hoo Lee
Denver, Colorado

Paul Lehman
Ann Arbor, Michigan

James Leonard Jr.
Bay City, Michigan

Lena Long
Richmond, Virginia

Karen Lucci
Wapato, Washington

Naomi Martinez
Denver, Colorado

James A. Mason
Orem, Utah

Kevin McCarthy
Boulder, Colorado

Daniel McDaniel III
Port Arthur, Texas

David McGinty
Louisville, Kentucky

Shirlene McMichael
Pendleton, Oregon

Virginia Hoge Mead
Kent, Ohio

Marilyn Meador
Radford, Virginia

Eunice Boardman Meske
Madison, Wisconsin

Charlotte Mills
Greeley, Colorado

John Mills
Greeley, Colorado

Ron Minetree
San Antonio, Texas

Sally Monsour
Atlanta, Georgia

Kate Rushford Murray
Los Angeles, California

Louis Nash
Burbank, California

Ernestina Navarro
Austin, Texas

Verne Nicklaus
Federal Way, Washington

Delores Nicosia
Chicago, Illinois

Barbara Oldenburg
Boise, Idaho

Michael Orthp
Boulder, Colorado

Diana-Veenkant Owen
Dallas, Texas

Allen B. Poland
Evanston, Illinois

Wendell Pritchett
Philadelphia, Pennsylvania

Lenna Quirones
Westfield, Massachusetts

Edward L. Rainbow
Denton, Texas

Joanna Rainey
Atlanta, Georgia

Ruth Red
Houston, Texas

Hortense Reid
Charlotte, North Carolina

Bennett Reimer
Evanston, Illinois

Albert Renna
San Francisco, California

Roger Rideout
New Orleans, Louisiana

Randall Rockhill
Renton, Washington

E. Jane Ruby
Fairfield, Iowa

Ronald Thomas Rudkin
Greenville, North Carolina

Glenna Rundell
Grand Forks, North Dakota

Sister Virginia Saalfield
Portland, Oregon

Evelyn T. Sabol
Cleveland, Ohio

William W. Sears*
Lawrence, Kansas

Robert G. Sidnell
Nacogdoches, Texas

Otis Davis Simmons
Montgomery, Alabama

Eva Mae Struckmeyer
Wausau, Wisconsin

Robert Surplus
Richmond, Kentucky

Hortense Taylor*
Washington, D.C.

Raymond Thigpen*
Greenville, South Carolina

Kenneth B. Thompson
Wichita, Kansas

Luther F. Thompson
Darien, Connecticut

Eugene W. Troth
College Park, Maryland

Norman Weeks
Seattle, Washington

LeRoy H. Welch
Traverse City, Michigan

Betty Welsbacker
Wichita, Kansas

Anderson White
Detroit, Michigan

Leona B. Wilkins
Evanston, Illinois

Linda Lea Williams
Irving, Texas

Olivia Williams
San Dimas, California

Gary Wilson
Roseberg, Oregon

Lizabeth Wing
Eugene, Oregon

Irving Wolfe*
Nashville, Tennessee

John Worrell
Cincinnati, Ohio

George Zimmerman
Dayton, Ohio

*Deceased

APPENDIX B

GROUP RESULTS, 1978-79 ASSESSMENT

TABLE B-1. Group Results, 78 Music Exercises, Age 9, 1979

	Mean % Correct	Mean Group Differences#
Nation	57.29	
Region		
Northeast	58.42	1.13
Southeast	54.84	−2.44*
Central	58.41	1.13
West	57.30	0.01
Sex		
Male	56.35	−0.94*
Female	58.26	0.97*
Race/ethnicity		
White	59.01	1.72*
Black	49.09	−8.20*
Hispano	51.02	−6.27*
Parental education		
Not graduated high school	51.66	−5.62*
Graduated high school	57.43	0.14
Post nigh school	61.94	4.66*
Type of community÷		
Rural	53.67	−3.62*
Disadvantaged urban	49.86	−7.43*
Advantaged urban	63.43	6.14*
Grade		
3	51.01	−6.28*
4	59.57	2.29*

#Figures may not total due to rounding.
** Asterisk indicates percentages statistically significant at the .05 level.*
÷ This population group represents about one-third of the sample.

TABLE B-2. Group Results, 125 Music Exercises, Age 13, 1978

	Mean % Correct	Mean Group Differences#
Nation	52.34	
Region		
Northeast	52.12	−0.23
Southeast	51.01	−1.34*
Central	53.60	1.25*
West	52.66	0.32
Sex		
Male	51.10	−1.24*
Female	53.55	1.20*
Race/ethnicity		
White	53.62	1.27*
Black	46.38	−5.96*
Hispano	46.43	−5.91*
Parental education		
Not graduated high school	48.12	−4.23*
Graduated high school	51.93‡	−0.41*
Post high school	55.31	2.96*
Type of community ÷		
Rural	50.16	−2.18*
Disadvantaged urban	46.72	−5.62*
Advantaged urban	55.62	3.28*
Grade		
7	48.97	−3.38*
8	53.68	1.33*

 # Figures may not total due to rounding.
** Asterisk indicates percentages statistically significant at the .05 level.*
‡ Groups representing a large proportion of the nation will have small standard errors. Statistical difference, though real, may be unimportant.
÷ This population group represents about one-third of the sample.

TABLE B-3. Group Results, 126 Music Exercises, Age 17, 1979

	Mean % Correct	Mean Group Differences#
Nation	49.98	
Region		
Northeast	49.75	−0.23
Southeast	48.12	−1.85*
Central‡	50.86	0.89*
West‡	50.9_	0.95
Sex		
Male	48.16	−1.82*
Female	51.69	1.72*
Race ethnicity		
White	51.18	1.20*
Black	43.41	−6.56*
Hispano	43.74	−6.24*
Parental education		
Not graduated high school	44.36	−5.62*
Graduated high school	47.84	−2.14*
Post high school	53.35	3.38*
Type of community÷		
Rural	47.62	−2.36*
Disadvantaged urban	45.06	−4.92*
Advantaged urban	53.21	3.21*
Grade		
10	44.16	−5.87*
11	50.88	0.90*
12	51.57	1.60*

 # Figures may not total due to rounding.

** Asterisk indicates percentages statistically significant at the .05 level.*

‡ A smaller difference (.89) for the Central region is statistically significant, while a larger difference (.95) for the West is not significant because there is a larger sample size in the Central region and also some sampling error in estimates of variations.

÷ This population group represents about one-third of the sample.

TABLE B-4. Group Results by Objectives, Age 9, 1979

	Objective I 15 Exercises	Objective IV 45 Exercises	Objective V 18 Exercises
Nation	72.02	51.95	58.22
Region			
Northeast	−0.98	1.54	1.94*
Southeast	2.04*	−3.60*	−3.17*
Central	0.08	1.65	0.85
West	−0.79	0.27	0.13
Sex			
Male	−1.42*	−0.78	−0.92
Female	1.50*	0.88	0.96
Race ethnicity			
White	0.18	2.08*	2.30*
Black	−0.15	−9.99*	−10.30*
Hispano	−1.65	−6.70*	−8.92*
Parental education			
Not graduated high school	−0.90	−7.26*	−5.35*
Graduated high school	0.09	−0.01	0.78
Post high school	3.17*	4.96*	5.17*
Type of community †			
Rural	2.11	−4.88*	−5.17*
Disadvantaged urban	−1.61	−9.31*	−7.47*
Advantaged urban	1.48	6.59*	9.01*

* *Asterisk indicates percentages statistically significant at the .05 level.*

† *This population group represents about one-third of the sample.*

TABLE B-5. Group Results by Objectives, Age 13, 1978

	Objective I 20 Exercises	Objective IV 50 Exercises	Objective V 55 Exercises
Nation	74.94	60.89	36.29
Region			
Northeast	−3.29*	−0.24	0.92
Southeast	3.37*	−2.86*	−1.67*
Central	0.71	2.09*	0.79
West	−0.74	1.03	0.11
Sex			
Male	−1.58*	−1.86*	−0.49
Female	1.60*	1.86*	0.50
Race ethnicity			
White	−0.38	2.11*	1.18*
Black	3.32*	−10.41*	−5.19*
Hispano	−2.57	−7.76*	−5.37*
Parental education			
Not graduated high school	1.62	−6.93*	−3.86*
Graduated high school	−0.08	−0.94	−0.05
Post high school	0.24	4.48*	2.60*
Type of community ÷			
Rural	2.90*	−5.38*	−1.05
Disadvantaged urban	2.16	−9.09*	−5.21*
Advantaged urban	−4.29*	6.02*	3.58*

** Asterisk indicates percentages statistically significant at the .05 level.*

÷ This population group represents about one-third of the sample.

TABLE B-6. Group Results by Objectives, Age 17, 1979

	Objective I 16 Exercises	Objective IV 49 Exercises	Objective V 61 Exercises
Nation	71.16	57.06	38.73
Region			
Northeast	−1.81*	−1.55	1.22
Southeast	2.67*	−3.14*	−2.01*
Central	−0.56	1.97*	0.39
West	−0.05	2.30*	0.10
Sex			
Male	−2.96*	−2.74*	−0.78
Female	2.79*	2.62*	0.69
Race ethnicity			
White	−1.02	1.90*	1.16*
Black	6.62*	−10.29*	−7.02*
Hispano	1.95	−10.38*	−5.09
Parental education			
Not graduated high school	1.37	−8.54*	−5.14*
Graduated high school	−1.11	−2.88*	−1.83*
Post high school	0.69	4.74*	2.92*
Type of community ÷			
Rural	0.45	−1.91	−3.16*
Disadvantaged urban	2.09	−7.15*	−4.97*
Advantaged urban	1.30	3.57*	3.19*

* *Asterisk indicates percentages statistically significant at the .05 level.*
÷ *This population group represents about one-third of the sample.*

TABLE C-1. Group Results, 25 Music Exercises, Age 9, 1972, 1979#

	Mean % Correct		Change in Mean % Correct	Mean Group Differences		Change in Mean Group Differences
	1972	1979	1972-79	1972	1979	1972-79
Nation	53.61	50.33	−3.28*			
Region						
Northeast	56.49	51.67	−4.82*	2.88*	1.35	−1.53
Southeast	51.04	47.17	−3.87*	−2.57*	−3.15*	−0.58
Central	55.05	51.95	−3.10*	1.44*	1.62	0.18
West	51.33	50.35	−0.98	−2.27*	0.03	2.30
Sex						
Male	52.85	49.88	−2.97*	−0.76*	−0.45	0.31
Female	54.32	50.79	−3.53*	0.71*	0.46	−0.25
Race/ethnicity						
White	55.95	52.33	−3.62*	2.31*	2.01*	−0.33
Black	43.29	41.03	−2.26*	−10.32*	−9.30*	1.02
Hispano	45.10	42.77	−2.33	−8.51*	−7.56*	0.95
Parental education						
Not graduated high school	48.12	44.25	−3.87*	−5.49*	−6.08*	−0.59
Graduated high school	53.54	50.49	−3.05*	−0.06	0.17	0.23
Post high school	58.39	54.64	−3.75*	4.78*	4.31*	−0.47
Type of community †						
Rural	51.68	45.76	−5.92*	−1.93	−1.56*	−2.63
Disadvantaged urban	43.38	41.95	−1.43	−10.22*	−8.38*	1.84
Advantaged urban	59.76	55.98	−3.78*	6.15*	5.66*	−0.49
Grade						
3	46.81	44.31	−2.50*	6.80*	6.02*	0.78
4	56.07	52.53	−3.54*	2.16*	2.20*	−0.26

 # Figures may not total due to rounding.
** Asterisk indicates percentages statistically significant at the .05 level.*
† This population group represents about one-third of the sample.

TABLE C-2. Group Results, 69 Music Exercises, Age 13, 1971, 1978#

	Mean % Correct		Change in Mean % Correct	Mean Group Differences		Change in Mean Group Differences
	1971	1978	1971-78	1971	1978	1971-78
Nation	41.79	41.28	−0.51			
Region						
Northeast	42.12	41.75	−0.37	0.33	0.47	0.14
Southeast	40.05	39.36	−0.69	−1.73*	−1.91*	−0.18
Central	43.26	42.36	−0.90	1.47*	1.08*	−0.39
West	41.31	41.58	0.27	−0.48	0.30	0.78
Sex						
Male	40.37	40.18	−0.19	−1.41*	−1.10*	0.31
Female	43.20	42.35	−0.85	1.41*	1.08*	−0.33
Race/ethnicity						
White	42.89	42.43	−0.46	1.10*	1.16*	0.06
Black	36.07	35.64	−0.43	−5.72*	−5.64*	0.08
Hispano	36.62	35.14	−1.48	−5.17*	−6.14*	−0.97
Parental education						
Not graduated high school	38.49	36.80	−1.69*	−3.29*	−4.47*	−1.18
Graduated high school	41.76	40.87	−0.89	−0.03	−0.11	−0.38
Post high school	45.17	44.19	−0.98	3.38*	2.91*	−0.47
Type of community †						
Rural	40.90	39.28	−1.62	−0.88	−1.99	−1.11
Disadvantaged urban	36.47	35.12	−1.35	−5.32*	−6.16*	−0.84
Advantaged urban	45.24	45.53	0.29	3.46*	4.25*	0.79
Grade						
7	38.25	37.85	−0.40	−3.53*	−3.43*	0.10
8	43.53	42.58	−0.95*	1.74*	1.30*	−0.44*

 # Figures may not total due to rounding.

** Asterisk indicates percentages statistically significant at the .05 level.*

† This population group represents about one-third of the sample.

TABLE C-3. Group Results, 80 Music Exercises, Age 17, 1972, 1979#

	Mean % Correct		Change in Mean % Correct	Mean Group Differences		Change in Mean Group Differences
	1972	1979	1972-79	1972	1979	1972-79
Nation	45.69	43.18	−2.51*			
Region						
Northeast	46.62	43.31	−3.31*	0.93	0.13	−0.80
Southeast	43.84	41.26	−2.58*	−1.85*	−1.92*	−0.07
Central	47.27	44.08	−3.19*	1.59*	0.90*	−0.69
West	44.39	43.86	−0.53	−1.29*	0.69	1.98*
Sex						
Male	44.38	41.62	−2.76*	−1.30*	−1.56*	−0.26
Female	46.96	44.65	−2.25*	1.21*	1.47*	0.26
Race/ethnicity						
White	47.05	44.40	−2.65*	1.37*	1.22*	−0.15
Black	38.07	36.53	−1.54	−7.62*	−6.65*	0.97
Hispano	36.36	36.35	−0.01	−9.33*	−6.83*	2.50
Parental education						
Not graduated high school	40.21	37.34	−2.87*	−5.48*	−5.84*	−0.36
Graduated high school	45.05	41.09	−3.96*	−0.64*	−2.09*	−1.45*
Post high school	49.17	46.47	−2.70*	3.49*	3.29*	−0.20
Type of community†						
Rural	43.38	40.42	−2.96*	−2.31*	−2.76*	−0.45
Disadvantaged urban	40.74	37.91	−2.83*	−4.95*	−5.27*	−0.32
Advantaged urban	49.47	46.48	−2.99*	3.78*	3.30*	−0.48
Grade						
10	38.56	36.94	−1.62*	−7.12*	−6.24*	0.88
11	46.77	44.15	−2.62*	1.08*	0.98*	−0.10
12	47.93	44.70	−3.23*	2.25*	1.52*	−0.73

 # Figures may not total due to rounding.

** Asterisk indicates percentages statistically significant at the .05 level.*

† This population group represents about one-third of the sample.

TABLE C-4. Group Results on Selected Subobjectives, Age 9, 1972, 1979

	Objective IVA					Objective VC				
	Mean % Correct		Change in Mean % Correct	Mean Group Differences		Mean % Correct		Change in Mean % Correct	Mean Group Differences	
	1972	1979	1972-79	1972	1979	1972	1979	1972-79	1972	1979
Nation	53.62	49.77	−3.85*			75.93	74.00	−1.93		
Region										
Northeast	57.39	51.90	−5.49*	3.77*	2.13*	77.12	74.51	−2.61	1.18	0.52
Southeast	50.31	45.97	−4.34*	−3.31*	−3.80*	77.15	74.18	−2.97	1.22	0.19
Central	54.82	50.87	−3.95*	1.20	1.10	77.08	75.91	−1.17	1.15	1.91
West	51.35	50.04	−1.31	−2.27	0.27	72.31	71.72	−0.59	−3.63*	−2.28
Sex										
Male	53.58	50.17	−3.41*	−0.05	0.40	74.22	72.78	−1.44	−1.72*	−1.22
Female	53.65	49.35	−4.30*	0.03	−0.42	77.60	75.31	−2.26	1.67*	1.34
Race/ethnicity										
White	56.20	51.80	−4.40*	2.58*	2.03*	77.93	75.42	−2.51	2.00*	1.42*
Black	42.30	39.96	−2.34	−11.32*	−9.81*	67.03	67.34	0.31	−8.91*	−6.66*
Hispano	44.44	43.32	−1.12	−9.19*	−6.45*	68.74	69.25	0.51	−7.20	−4.75
†Parental education										
Not graduated high school	47.29	42.42	−4.87*	−6.34*	−7.35*	73.18	73.21	0.03	−2.76	−0.78
Graduated high school	53.57	49.78	−3.79*	−0.05	0.01	75.74	77.10	1.36	−0.19	3.10*
Post high school	58.67	54.01	−4.66*	5.04*	4.24*	79.58	75.51	−4.07	3.65*	1.51
Type of community ÷										
Rural	50.07	43.60	−6.47*	−3.55*	−6.18*	74.62	71.56	−3.06	−1.32	−2.44
Disadvantaged urban	42.47	41.34	−1.13	−11.15*	−8.43*	66.80	68.91	2.11	−9.14*	−5.09
Advantaged urban	60.95	56.12	−4.83*	7.33*	6.35*	81.07	83.77	2.70	5.14*	9.77*
Grade										
3	46.45	43.50	−2.95*	−7.17*	−6.27*	72.42	73.38	0.96	−3.52*	−0.62
4	56.18	52.07	−4.11*	2.56*	2.30*	77.50	74.45	−3.05	1.56*	0.46

** Asterisk indicates percentages statistically significant at the .05 level.*

† This population group represents about one-third of the sample.

TABLE C-5. Group Results on Selected Subobjectives, Age 13, 1971, 1978

	Objective IC					Objective IVA					Objective VB				
	Mean % Correct		Change in Mean % Correct	Mean Group Differences		Mean % Correct		Change in Mean % Correct	Mean Group Differences		Mean % Correct		Change in Mean % Correct	Mean Group Differences	
	1971	1978	1971-78	1971	1978	1971	1978	1971-78	1971	1978	1971	1978	1971-78	1971	1978
Nation	50.29	56.58	6.29*			68.85	66.22	−2.63*			24.95	24.79	−0.16		
Region															
Northeast	45.63	53.28	7.65*	−4.67*	−3.30*	70.22	66.41	−3.81*	1 .*	0.20	25.56	25.86	0.30	6.61	1.08
Southeast	38.46	64.28	5.82*	8.17*	7.70*	65.38	63.51	−1.87	−3.47*	−2.70*	24.03	23.17	−0.86	−0.92	−1.62*
Central	47.80	54.02	6.22*	−2.49	−2.56	71.00	67.98	−3.02*	2.15*	1.76*	25.46	25.54	0.08	0.51	0.76
West	50.35	54.91	4.56	0.05	−1.68	68.22	66.92	−1.30	−0.63	0.70	24.57	24.54	−0.03	−0.38	−0.25
Sex															
Male	47.14	54.60	7.46*	−3.15*	−1.98*	68.06	65.87	−2.19*	−0.79*	−0.34	24.08	24.06	−0.02	−0.87*	−0.72*
Female	53.40	58.58	5.18*	3.10*	1.99*	69.64	66.56	−3.08*	0.80*	0.34	25.82	25.49	−0.33	0.87*	0.71*
Race/ethnicity															
White	45.79	52.92	7.13*	−4.50*	−3.66*	70.70	68.13	−2.57*	1.86*	1.91*	25.88	25.72	−0.16	0.93*	0.94*
Black	74.65	76.06	1.41	24.35*	19.48*	58.78	56.20	−2.58	−10.07*	−10.02*	20.34	20.25	−0.09	−4.61*	−4.54*
Hispano	66.23	59.91	−6.32	15.93*	3.33	62.14	60.71	−1.43	−6.71*	−5.50*	19.44	19.60	0.16	−5.51*	−5.19*
Parental education															
Not graduated high school	56.61	64.55	7.94*	6.31*	7.97*	64.29	59.76	−4.53*	−4.56*	−6.45*	22.59	21.49	−1.10	−2.36*	−3.29*
Graduated high school	51.12	56.07	4.95*	0.82	−0.51	68.84	65.81	−3.03*	−0.01	−0.40	25.07	24.59	−0.48	0.12	−0.20
Post high school	45.17	52.81	7.66*	−5.14*	−3.77*	72.83	69.87	−2.96*	3.98*	3.66*	27.65	27.15	−0.50	3.70*	2.36*
Type of community†															
Rural	53.09	66.37	13.28*	2.80	9.79*	66.08	61.19	−4.89*	−2.76*	−5.03*	24.54	24.58	0.04	−0.42	−0.21
Disadvantaged urban	65.10	74.20	9.10*	14.81*	17.62*	61.72	56.74	−4.98*	−7.13*	−9.48*	20.32	19.64	−0.68	−4.63*	−5.14*
Advantaged urban	37.82	43.45	5.63	−12.47*	−13.13*	74.01	71.95	−2.09	5.19*	5.74*	27.58	29.09	1.51	2.63*	4.30*
Grade															
7	55.95	60.12	4.17*	5.66*	3.53*	64.91	62.54	−2.37*	−3.94*	−3.68*	21.83	21.70	−0.13	−3.12*	−3.09*
8	47.66	54.82	7.16*	−2.63*	−1.76*	70.88	67.64	−3.24*	2.01*	1.42*	26.45	25.96	−0.49	1.50*	1.17*

* *Asterisk indicates percentages statistically significant at the .05 level.*

† *This population group represents about one-third of the sample.*

TABLE C-6. Group Results on Selected Subobjectives, Age 17, 1972, 1979

	Objective IC					Objective IVA					Objective VB				
	Mean % Correct		Change in Mean % Correct	Mean Group Differences		Mean % Correct		Change in Mean % Correct	Mean Group Differences		Mean % Correct		Change in Mean % Correct	Mean Group Differences	
	1972	1979	1972-79	1972	1979	1972	1979	1972-79	1972	1979	1972	1979	1972-79	1972	1979
Nation	48.24	45.90	−2.34			70.35	66.17	−4.18*			32.50	31.54	−0.96*		
Region															
Northeast	44.73	46.51	1.78	−3.52*	0.61	70.48	65.28	−5.20*	0.13	−0.89	34.55	32.65	−1.90	2.05*	1.11
Southeast	54.27	49.44	−4.83	6.03*	3.54*	68.13	63.26	−4.87*	−2.23*	−2.91*	30.28	29.94	−0.34	−2.22*	−1.59*
Central	47.48	44.04	−3.44	−0.77	−1.86	72.57	67.49	−5.08*	2.21*	1.32*	33.49	32.05	−1.44	0.99	0.51
West	47.77	44.24	−3.53	−0.48	−1.66	69.50	68.20	−1.30	−0.85	2.03*	30.98	31.37	0.39	−1.51*	−0.17
Sex															
Male	46.48	46.19	−0.29	−1.76*	0.29	69.75	65.02	−4.73*	−0.60*	−1.15*	31.57	30.41	−1.16	−0.93*	−1.13*
Female	49.98	45.56	−4.42*	1.73*	−0.34	70.86	67.28	−3.58*	0.51*	1.11*	33.36	32.59	−0.77	0.86*	1.05*
Race ethnicity															
White	45.65	42.52	−3.13*	−2.60*	−3.38*	72.05	68.05	−4.00*	1.70*	1.88*	33.88	32.66	−1.22*	1.39*	1.12*
Black	65.12	66.48	1.36	16.88*	20.58*	60.45	55.78	−4.67*	−9.91*	−10.39*	24.45	25.15	0.70	−8.05*	−6.39*
Hispano	57.56	54.72	−2.84	9.32*	8.82*	60.59	56.46	−4.13*	−9.76*	−9.71*	23.78	26.78	3.00	−8.72*	−4.76*
Parental education															
Not graduated high school	52.12	51.98	−0.14	3.88*	6.08*	64.49	58.00	−6.49*	−5.86*	−8.17*	27.40	27.90	−0.40	−5.10*	−4.54*
Graduated high school	47.31	46.25	−1.06	−0.93	0.35	69.64	64.09	−5.55*	−0.72*	−2.08*	32.35	29.79	−2.56*	−0.14	−1.75*
Post high school	47.00	43.63	−3.37*	−1.25	−2.27*	74.09	70.06	−4.03*	3.74*	3.88*	35.52	34.27	−1.25*	3.02*	2.73*
Type of community†															
Rural	47.47	43.64	−3.83	−0.78	−2.26	67.54	63.72	−3.82*	−2.81*	−2.45	30.66	28.29	−2.37	−1.83	−3.25*
Disadvantaged urban	57.67	58.12	0.45	9.42*	12.23*	64.08	59.80	−4.28*	−6.27*	−6.38*	27.59	26.72	−0.87	−4.91*	−4.82*
Advantaged urban	40.94	46.29	5.35	−7.31*	0.39	74.26	69.70	−4.56*	3.91*	3.53*	36.56	34.75	−1.81	4.07*	3.21*
Grade															
10	50.04	53.42	3.38	1.79	7.52*	63.04	57.88	−5.16*	−7.31*	−8.29*	25.93	26.19	0.26	−6.56*	−5.34*
11	47.11	44.66	−2.45	−1.14*	−1.24*	71.59	67.74	−3.85*	1.23*	1.57*	33.51	32.23	−1.28*	1.01*	0.69*
12	56.04	43.63	6.41*	1.80	−2.27	71.70	66.39	−5.31*	1.35*	0.22	34.74	33.74	−1.00	2.24*	2.24*

** Asterisk indicates percentages statistically significant at the .05 level.*

† This population group represents about one-third of the sample.

APPENDIX D

MUSIC OBJECTIVES, 1971-72 AND 1978-79

1971-72 Assessment

I. PERFORM A PIECE OF MUSIC

A. Sing (technical proficiency not required)

B. Play or sing (technical proficiency not required)

C. Invent and improvise (technical proficiency not required)

II. READ STANDARD MUSICAL NOTATION

A. Identify the elements of notation, such as clefs, letter names of notes, duration symbols, key signatures and dynamic markings

B. Identify the correct notation for familiar pieces

C. Follow notation while listening to music

D. Sight-sing

III. LISTEN TO MUSIC WITH UNDERSTANDING

A. Perceive the various elements of music, such as timbre, rhythm, melody and harmony, and texture

B. Perceive structure in music

C. Distinguish some differing types and functions of music

D. Be aware of (and recognize) some features of historical styles in music

IV. BE KNOWLEDGEABLE ABOUT SOME MUSICAL INSTRUMENTS, SOME OF THE TERMINOLOGY OF MUSIC, METHODS OF PERFORMANCE AND FORMS, SOME OF THE STANDARD LITERATURE OF MUSIC AND SOME ASPECTS OF THE HISTORY OF MUSIC

A. Know the meanings of common musical terms used in connection with the performance of music, and identify musical instruments and performing ensembles in illustrations

B. Know standard pieces of music by title, or composer, or brief descriptions of the music, or of literary-pictorial materials associated with the music from its inception

C. Know prominent composers and performers by name and chief accomplishment

D. Know something of the history of music

V. KNOW ABOUT THE MUSICAL RESOURCES OF THE COMMUNITY AND SEEK MUSICAL EXPERIENCES BY PERFORMING MUSIC

A. Know whether or not there are music libraries and stores in the community, and know where concerts are given

B. Seek to perform music by playing, singing, taking lessons, joining performing groups, and so on

VI. MAKE JUDGMENTS ABOUT MUSIC AND VALUE THE PERSONAL WORTH OF MUSIC

A. Distinguish parodies from their models

B. Be able to describe an important personal "musical" experience

1978-79 Assessment

I. VALUE MUSIC AS AN IMPORTANT REALM OF HUMAN EXPERIENCE

A. Be affectively responsive to music

B. Be acquainted with music from different nations, cultures, periods, genres and ethnic groups

C. Value music in the life of the individual, family and community

D. Make and support aesthetic judgments about music

II. PERFORM MUSIC

A. Sing (without score)

B. Play (without score)

C. Sing or play from a written score

D. Play or sing a previously prepared piece

III. CREATE MUSIC

A. Improvise

B. Represent music symbolically

IV. IDENTIFY THE ELEMENTS AND EXPRESSIVE CONTROLS OF MUSIC

A. Identify the elements of music

B. Identify the relationships of elements in a given composition

C. Demonstrate an understanding of a variety of musical terms, expression markings and conducting gestures in a musical context

V. IDENTIFY AND CLASSIFY MUSIC HISTORICALLY AND CULTURALLY

A. Identify and describe the features that characterize a variety of folk, ethnic, popular and art music

B. Identify and describe the music and musical style of the various stylistic periods in Western civilization (e.g., Medieval, Renaissance, Baroque, Classical, Romantic). Identify representative composers of each period

C. Cite examples of ways in which man utilizes music in his social and cultural life

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